A CULTURAL HISTORY OF INDIA AND PAKISTAN

By

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PREFACE

This treatise is the result of an objective study of Indian history made with a scientific outlook by me during the last six years without any prejudice whatsoever. It took me about a year to write down the book. This book contains, among others, the following research results of the author which throw new light on many phases and figures of Indian history:

Mohenjo-daro people were Akkadian colonists. Indo-Europeans when entered into India had Bronze Age civilization. Their speech developed into Prakrit languages. Hastinpur II of the archæologists represents their culture. Achæmenid rulers brought iron, Aryans and Brahminism to India and caused the development of hybrid Sanskrit. Many Vedic hymns were composed in the 5th and 4th centuries B. C. Brahmin script developed out of a combination of Kharoshthi and Greek scripts. Zeus became Siva, Pallas Athena Kali and Logos Brahma. Jainism developed after Seniya and Diogenes. The Vasishtha Dharma Sutra was composed about 150 B. C. Vaisampayana compiled the Yajur-Veda in about 140 B. C. Scythians introduced to India Sati, Sraddha, doctrine of rebirth, belief in incarnation, Ganapathi-worship and the cult of Sramana. Scythians brought Dravidians to India. Southern kings were of Scythian origin. Varma is a Scythian suffix. Bhrigu wrote the original Manu Samhita in about 80 B. C. Valmiki wrote the original Ramayana in about 70 B. C. Angiras compiled the Atharva-Veda in about 70 B. C. Dvaipayana compiled the Rig-Veda in about 50 B. C. and wrote the original Mahabharata. Ten principal Upanishads were written between the first and fourth centuries A. D. Panini lived about A. D. 150, Asvaghosha and Badarayana A. D. 400 and Jaimini A. D. 450. Badarayana rewrote the Manu Samhita and the Mahabharata and wrote the Gita, the former being under the name Manava Dharma Sastra. Tissa, the teacher of Buddhaghosha, founded the Theravada school and composed the Kathavatthu. Buddhaghosha probably wrote the Milinda Panha

and grouped the Nikayas. Bodhiruchi grouped the Pitakas. Baudhayana lived about A. D. 550 and Apastamba A. D. 600.

The above contents were published in an advertisement about this book in the issue of 19th May, 1956 of "Navayugam" (Malayalam Weekly, Kozhikode) and in the issue of June 1956 of "The Modern Review," Calcutta.

Other important results of the researches made by this writer are the following: The Middle Path of Buddhism was inspired by Greeks; the Shashti-Tantra (now lost) was written by Kapila in about A. D. 50; Narada lived in C. A. D. 50 and is the father of popular Hinduism; Satapatha Brahmana was written in about A. D. 130; some parts of the extant Valmiki-Ramayana were composed by Usanas who rewrote the Ramayana in C. A. D. 275. Apart from these the work contains many other findings of the author.

I have endeavoured to search and tabulate the records with integrity and to present the facts in a chronological sequence in a scientific spirit as then only will it be possible to understand the real significance of events. Though some of the dates newly assigned by me to some historical figures and literary works may not be *accurate*, they may be the *nearest* to the actual dates than any proposed till now. A few historians among the British rulers of India are said to have minimised the greatness of India in order to demoralise the then rising freedom movement in India. With a view to counteract them, it is also stated, some of the Indian historians, on the other hand had undertaken militant history writing by exaggerating the glory of India. In a scientific treatise like this such sentimental arguments, naturally, do not find a place.

NILESHWAR,
FEBRUARY, 1957

Kodoth Govindan Nambiar

Chapter I

STONE AGE

The Age of the Earth

Scientists have endeavoured to calculate the age of the earth through the study of radioactivity. In one year, heavy uranium loses one atom out of 6,570 million; light uranium or actino-uranium one out of 1,030 million and thorium one out of 20,000 million. The lost atoms are replaced by an equal number of atoms of lead. So the age of uranium can be calculated fairly accurately through the calculation of the number of atoms of lead contained in the metal and the number of atoms of uranium. Likewise, the time elapsed since a rock has been formed can be calculated if a mineral containing uranium is imprisoned in the rock. By the above method of Pierre Curie the epoch at which the earth began to solidify is determined by scientists and the figures got vary between 3,000 and 4,000 million years.

Life on the earth appeared about one billion years (10^9) ago, soon after the earth had cooled. The age of a fossil is deduced from the age of the rock or soil in which it is found. Lately, the fossils have been dated by the carbon—14 method.

Evolution of Man

A creature named Proconsul is found to have lived in East Africa about 30,000,000 years ago which probably belonged to the common ancestral stock of men and apes. These creatures appear to have been equally at home in the

trees and on the ground. Some of them happened to be gradually restricted to forest life and developed long arms as a result of swinging from bough to bough and thus became the typical anthropoid apes. Others who took to the open country got their legs outgrow the arms in length as they practiced to scuttle about on their hind legs. These creatures representing their nearby human stage are known as Australopithecus. The first fossil of the skull of Australopithecus was discovered in the filling of an ancient cave exposed by the quarrying of limestone at Taung, in Bechuanaland in in South Africa in 1924 and was identified by Professor Raymond Dart of Johannesburg as that of the proto-human. The specimens of an early Australopithecus, which lived 500,000 years ago, have been discovered in the Transvaal by by Dr. Robert Broom in 1936. Kenneth Oakley says that probably somewhere in the open savannah bordering on the forests of Central Africa still earlier Australopithecines evolved into tool-making Pithecanthropus (true men) presumably between 500,000 and 1,000,000 years ago. Some of the Australopithecines survived almost unchanged as in South Africa who being ill-equipped were made extinct by the carnivores.

The first tool-making people began to spread over the Old World by about 500,000 years ago. Traces of now extinct Pithecanthropus were found in cave deposits near Peking. We have also the examples of this type from Java. These Peking and Java Pithecanthropus likely lived between 500,000 and 200,000 years ago. The Heidelberg jaw suggests that Pithecanthropus (Homo) existed in Germany perhaps 400,000 years ago. It has been pointed out from indications in South Africa that early men did not take shelter in caves until they had the use of fire, as caves would have been death-traps without fire as a means of warding off carnivores. Charred bones in the cave of Chou-Kou-tien, near Peking indicate that Peking Man had the use of fire, otherwise he

could not inhabit caves. The evidence now available shows that Australopithecus had not the use of fire. Kenneth Oakley says that "there are hints that the earliest true men in Africa were rather like a prototype of the Australian aboriginal, and that it was from this group that" the Europeans themselves were evolved.

Life of early Man

Man first lived in caverns side by side with wild animals. His way of life was not very different from that of these ferocious beasts. His primary want was to eat for which he had to take to hunt. He had also to defend himself. His rudimentary brain worked and enabled him to invent crude weapons of stones which discarded his relative weakness. The crude club was improved to become a stone axe. He made a lance by fastening a pointed flint on a staff by means of a thong. It was also improved to become a javelin. Armed with these weapons he won the victory over the most ferocious beasts in the struggle for existence.

Man was first frightened at the sight of fire, perhaps ignited by lightning. But soon he not only subjugated the enemy itself, but harnessed it as he came to know that the flame of the fire 'could live when fed, or die when neglected.' He preserved this dangerous element in his cave to use it to ward off the ferocious beasts. It is said that the method of producing fire by rubbing two pieces of wood together was invented long after fire came to be used.

Development of Languages and Cultures

The structure of the larynx, tongue muscles and other organs enabled human beings to emit a very large range of noises that are technically called articulate sounds. They have been able to invest these sounds with conventional meanings owing to their possessing expansive brains and living in societies. Thus 'words' were originated by some

sort of tacit agreement between members of the society using them. The language thus developed seems to be as old and universal as the human trait of tool-making as even the earliest 'human' skulls bear marks of swelling of the brain in the speech regions. The language enabled human experience to be 'pooled'.

Archæologists classify the objects used by the primitive people by function, into axes, knives, huts, tombs etc. In each functional class they distinguish a variety of types prevailing over a region at a certain period in archæological time. The totality of recognised types occurring simultaneously in a particular region is termed a 'culture'. The variety of types testifies to the multiplicity of social traditions governing their production and use. As language is an important vehicle in the formation and transmission of social tradition, the group of people possessing a distinct culture might be expected to speak a distinct tongue. Therefore the divergences in linguistic conventions may be taken to be as old as divergences in material equipment or burial rites. Nevertheless, Professor V. Gordon Childe reminds us that culture and language need not necessarily coincide. Groups speaking different languages are found to have a common culture and it is explained as owing to their occupying a continuous geographical region. Owing to the necessities of its own peculiar environment, each society evolves distinctive processes and devices. But as societies migrate to other regions, generally the immigrant and the native traditions blend. Further, inventions and discoveries cross the boundaries of region and linguistic convention and are diffused from one society to another.

Geography

Historical India comprises the two countries now known as India and Pakistan. In this book, for the sake of convenience, the word India is used in its historical sense. The

name of India is derived from the Greek name of Indus for 'Hindu' which was so called by ancient Persians for the native name 'Sindhu'. According to another theory the name Sindhu was changed into Hindu by the Saka – Palhava tribes of Central Asia who entered India.

The range of Himalayan mountains on the north, the Arabian sea on the West, the Bay of Bengal on the east and Indian ocean on the south separate India from the rest of the world making it a geographical unit on a vast scale. India is about 1·8 million square miles in area and has regional variations of physical features. The Himalayan mountain range rising to an average height of 20,000 feet has an average width of 150 miles and a length of about 1,500 miles. The coastal strip of Baluchistan in the North-West of India and the Bolan and Kyber passes in the Western end of the Himalayan range provide approaches to India from the North-West.

The southern part of India is a peninsula driven like a wedge into the Indian ocean. The two sides of the peninsula are littoral plains and the middle part forms a plateau called Deccan which is geologically the oldest part of India. The two sides of the plateau form the two mountain ranges called Ghats which meet in the Nilgiris further to which the ranges extend southwards in a single range terminating in Cape Comorin. The northern side of the plateau forms the Vindhya mountains.

Between the Deccan plateau and the Himalayan range lies the fertile Indo-gangetic plain watered by the Indus and the Ganges rivers. The deltas of the rivers, the Mahanadi, the Godavari, the Krishna, the Narmada, the Tapti and the Kauveri are also fertile regions. The Gangetic plain and the West Coast and in a lesser degree the east coast have plenty of rainfall due to the South West and North-East monsoons while the Deccan, the region of blacksoil, has scanty rainfall. The region of Rajaputana is sandy with little rain. Owing to its different physical features India has a variety of climates.

Lower Palæolithic Phase

The geologists have discovered the vast periods of time involved in geological reckoning, even in those final phases of the natural sequence where traces of man first appear, and expressed in terms of solar years. The methods employed for the purpose involve a correlation between the Geological phenomena of the Pleistocene period and the fluctuating curve of solar radiation with which those happenings seem to be closely connected. Accordingly the beginning of the period has been dated somewhere about 600,000 years ago. To this time of great antiquity seem to belong the earliest tools made of chipped stone found in the Old World which attest the existence of human being as a tool-using being. Later, about 500,000 years ago, there developed a relatively competent technique in making stone tools to certain recognisable patterns, distinguishable in Europe and perhaps in Africa also. To this period may belong the skull from Modjokerto in Java, once declared by geologists to be the earlest representative of the Pithecanthropus (the walking ape-man) race of primitive man. The tools and fossils found widely distributed on earth from this time onwards carry on the story of man's evolution across the millennia until fifteen or twenty thousand years ago. The whole of this epoch constitutes the geological period known as Pleistocene phase and Archaeologically as the Palaeolithic or Old Stone Age phase of man's development.

Very rare human fossils, some fossils of the animals hunted by man and discarded stone tools lying in river—gravels unearthed by archaeologists are used by the historians for their study of Lower Palaeolithic man and his achievements. In India, as in Europe, man-made tools have been found in many of the river terraces, varying with climatical changes what in geology is termed as glacial periods. In Northern India, geologists have suggested that there were in

Pleistoncene times five glacial periods (Ice Ages) separated by interglacials in that area and each indicated by typical products of glacial action.

The beginning of the first Glacial Age is dated by geologists to 600,000 years ago and the bitterest stage of the Fourth Glacial Age some 50,000 years ago. The implements found in deposits of these remote periods have been grouped by the archaeologists into *flake* and *core* tools. In the flake (or chopper) group, a tool is made by detaching a large flake from a block of stone and working this into the finished tool. In the core group, a tool is made by flaking or chipping away from a parent block until the resultant form is satisfactory. In manufacturing core tools naturally flakes are produced in the process which were in turn often made into tools, but the core tools always predominating.

Though no human fossils have been found in India, from the evidence elsewhere in the Old World, the conclusion is that the flake or chopper tradition found in India may be the product of the Ancient or Palæoanthropic stem in human evolution such as Pithecanthropus and the tools of core technique may be of the early *Homo sapiens* in the Modern or Neoanthropic family.

The skulls of the Palæoanthropic stem bear greater resemblances to the common man—ape stock with which may possibly be associated the chopper-tool culture in East Asia. The descendants of this particular group of later Palæolithic times are essentially makers of flake-tools. As alluded to elsewhere the famous Pithecanthropus of Java, and his relatives from Choukoutien in China are considered to belong to the Palæoanthropidae. The skulls of the Neoanthropic group differ little from that of modern man and the group is associated with the type of tools within the core cultures of which there is evidence at least in Europe. These two main groups of fossil men, the Palæoanthropic and Neoanthropic stems have already distinguishably reached a considerable

degree of divergence by the Middle Pleistocene, a period dated by the solar radiation method between about 400,000 and 200,000 years ago.

The earliest traces of tool-making men in India are found to belong to the last phase of the Second Glaciation or to the beginning of the Second (Great) Interglacial. That is, tool-making men lived in India about 400,000 years ago, if expressed in terms of solar years. In deposits of this Pleistocene age in Northern Indis, in the Potwar (Rawalpindi) region, and perhaps in Central India, in the upper Narmada Valley (Hoshangabad, Jubulpore district) large rough flake-tools have been found and have been suggested to belong to the very end of the Lower Pleistocene phase and also to be contemporary with the earlier Pithecanthropoids in Java. But both core and flake industries are found in West and Central Europe at this period. This flake industry is followed by an industry known as Soan industry and hence the Indian flake indstry is known as the Pre-Soan industry.

In the deposits in the Valley of the Soan river, a tributary of the Indus in the Potwar region of the Punjab, early flake-tools are found from which a series of Lower Palaeolithic cultures are suggested. Archaeologists have also found the flake industry in the Valley of Indus, in Poonch near Jhelum and in the Salt Range. This industry has been called the *Soan Culture*.

In the early Soan industry are found two main types of implements. Tools of one type were made from rounded pebbles as only the minimum flaking necessary to obtain a chopper shape is found. The other type of tools comprises thick, heavy flakes and the equally crude parent cores from which they were detached. The early Soan industry belongs to the early Middle Pleistocene date, within the second Interglacial period and, dated by the solar radiation method, by geologists, between about 400,000 and 200,000 years ago. By the close of this period two kinds of technical developments are noticed in stone-flaking which become distinct in the Late Soan Industries.

These Late Soan industries have begun in the third Glacial times and survived later. To one of these types belong the improved flake-tools made from pebbles and the tools made from a core before detaching the flake belong to the other. These final phases of the Soan industries, found in different parts of North-West India, survived into the Last Interglacial period and beyond.

In a large number of finds in South-East India stone implements of the core-tool group of Lower Palaeolithic period have been found. This Indian representative of the core-tool family has been called *Madras Industry*. The name Madras is given as the industry is centered in Madras area. The Madras industry is found to represent in Central and Western India and even in the area of Soan culture.

In the Madras Industry we find tools pear-shaped or oval, flaked on both faces to produce a continuous cutting edge. This type of tool is also called hand-axe. In this industry flaking was done with a hammer-stone, and the finer work of the later phases with a bar of wood or horn. In the Valley of the rivers Kauvery and Vaigai in the South, round Bombay and north of the river Narmada in the West and in the upper reaches of the Soan, a tributary of the Ganges, have been found tools of the Madras industry type. In the industry core-tool element is found to be strongest in the south and south-east, the flake or chopper type dominating farther north including Kurnool area.

Tools similar or sometime even identical to the type of Madras industry are seen in South Africa, Southern England, Western Europe and Arabia. From this it is suggested that the South Indian Palaeolithic cultures belong to this vast Eurafrican province. From Swanscombe, in England, a skull belonging to Homo sapiens has been found associated with a core-tool industry of the Madras (or the Acheul of France) type. From this archaeologists have attributed the core-tools of Eurafrican province to *Homo sapiens*.

It was in the year 1863 that the geologist Bruce Foote found the first Indian Palaeolithic implement near Madras and paved the way for the conception of the essential unity of the earlier Stone Age Cultures throughout the Old World, as similar tools associated with extinct species of mammals have already been found in Europe by the geologists Sir John Evans, Falconer and Prestwich.

Commencing on December 1, 1952 and concluding on March 1953 the Deccan College Research Institute of Poona, led by Dr. H. D. Sankalia, conducted excavations in the Narmada Valley region. Their excavations and explorations produced large flake or pebbles, intentionally fashioned into axes, scrapers, choppers and hammers, embedded in thick layers of cement concrete-like gravels of sand, giving evidence that man first inhabited the Narmada Valley over 250,000 years ago. While the tools indicated the presence of man, the gravels and the generally large pebbles suggested that the climate of the region at that time was much more wet than at present. Dense jungles teemed with animals like horses, buffaloes and elephants. What happened to this man and his culture is not known to the excavator.

During the last Glacial period in certain parts of Western Asia and in Europe there arose a stone industry in which a new type of tool based on the slender blade detached from a core was made. This industry is said to be characteristic of the Upper Palaeolithic phase. The Aurignacian and Gravettian forms of implements belong to the upper Palaeolithic industries. The upper Palæolithic industries are said to have probably originated in Western Asia. The Aurignacian forms suggested to be originated in Iranian plateau are found in some of the Chinese industries of the Shuitungkou river. Gravettian forms are found from the sites of Kurdistan, in Northern Iraq.

But in India, according to Stuart Piggott, the Lower Palæolithic cultures within the core and flake (or chopper)

groups were both present at the beginning of Middle Pleistocene times (about 400,000 years ago) and they survived in old forms long after the end of the last Glacial period (about 10,000 years ago). He says (in his book of 1950) that conclusive proof for the survival in India of any upper Palaeolithic cultures comparable to those of Europe or the Western Asia is not yet found. Certain stone industries from Kurnool in the Deccan and near Bombay are not generally accepted to represent the Upper Palaeolithic culture. Piggott refutes the claim that the paintings found in certain Central Indian rock-shelters are upper Palaeolithic and says that inferential evidence pointed out by Gordon shows that any of these paintings cannot be dated before the fifth century B. C.

Microlithic Phase

In Europe and North and East Africa and again in Palestine stone tools of small dimensions based on Upper Palaeolithic traditions of blade-tools are found in immediately post-glacial times. These industries are called microlithic industries and assigned to the post-glacial Mesolithic period.

In India, microlithic industries have been found to have survived in certain areas at least down to early historic times. In a large number of regions in South India, in Central India, in Sind and in North-West Punjab are found such dimunitive stone implements. The Indian microlithic industries have not been found, according to Piggott, to have any connexion with the final phases of Palaeolithic cultures. Since the microlithic industries of India do not seem to have been evolved out of a more or less non-existent Upper Palaholithic blade industry, they considered to represent the arrival of new folks, probably from the West. There is no evidence showing whether the people who produced the microlithic tools were agriculturist or merely hunters and food-gatherers in the Palaeolithic tradition. These microlithic cultures are found to have had a long survival in India, side by side with

communities making pottery and ground stone axes in the Neolithic tradition.

But very recently we have got some more facts about Stone Age cultures in India. The Archaeological Department of the Government of India in about the year 1954 carried out an excavation at the site of Damodar Valley Dam in Durgapur, West Bengal. The excavations brought to light stone implements of ten thousand years old. Typologically they comprise cresents, points, knife-blades, almond-shaped arrowheads, small axes and awls round the notched scrapers burins. They are made variously of quartz, chert, Carnelian and rock-crystal. According to the knowledge we derive from other comparable sites in Western Asia, Africa and Europe, these implements were used singly or hafted on a wooden stick.

The implements are found interspersed with layers of stone rubble over a five-foot thick deposit of detrital laterite. As the surface of this detrital laterite seemes to have been exposed to view at the close of the last pluviation (period of heavy rainfall) of the Pleistocene and as the implements were found right on the top of this detrital laterite, it is suggested that they likely belong to the beginning of the Holocene, i. e., about 10,000 years ago. Moreover, the implements are found covered up with sandy loam of about three feet thickness. The loam has weathered red, indicating its high antiquity. The people of the time lived by hunting animals and birds and collecting such food as was readily available in the region. They did not produce any pottery and knew nothing of agriculture.

Neolithic Phase

In certain regions of the Old World, a stage of human progress called Neolithic in which the arts of agriculture and stock-breeding were practised, but metal was not known, is found to have existed. In India a vast quantity of ground stone axes of the type known in *Neolithic* contexts elsewhere are

found to have existed from many sites scattered over the country and frequently associated with microlithic tools.

In 1945 Wheeler has discovered some imported coins and pottery of the first century A. D. in a Roman trading post at Arikamedu near Pondichery along with stone stone-axe tools. Later he also indentified the native pottery of Mysore with the period of finds of Roman coins. From these three main cultures known as *Stone Axe Culture*, *Megalithic Culture* and *Andhra Culture* are characterized and dated, one overlapping the other.

Stone Axe Culture was marked by polished pointed butt axes of rock along with a crude microlithic industry in Jasper, flint, agate, and crystal. Hand-made pottery rarely painted or incised was characteristic of the Culture. That metal was known is evidenced from the existance of two small copper objects by which the scarcity of the metal is also known. Stone Axe Culture may have begun early in the first millennium B. C. surviving till about 200 B. C.

Megalithic Culture was an intrusive iron-using one, making wheel-turned pottery and erecting elaborate megalithic tombs and continuing to the first century A. D. *Andhra Culture* has been dated in its earlier phases by Roman coins of the first century A. D. and pottery of Arikamedu types, and is found to have survived until third century A. D.

The excavations at Burzahom, between Srinagar and Gandarbal have brought to light the existence of a Neolithic culture in Kashmir. The site has produced a sequence in which Layer C contains unweathered post-glacial loess, 9 feet in thickness at the bottom of which, on virgin soil, was found a hearth with bone awls, pottery, and polished axes. In the opinion of Piggott the thickness of the Layer need not imply a long passage of time as claimed by the excavators, since it may be due to relatively rapid accumulation of wind-deposited soil. So, he says that the culture cannot be dated beyond perhaps the first millennium B. C.

Though the origin of these Neolithic cultures is not definitely known, they seem to represent the arrival of new peoples from the West. There is no evidence at present to date such cultures either in Central India or in Kashmir much before 500 B. C.

Life in Palæolithic Phase

Though majority of the human beings have discarded Palæolithic way of life thousands of years ago, some tribes in certain parts of the world have preserved almost the Palæolithic way of life till very recently. These "cultural fossils" provide us examples of the life of Palaeolithic men.

A most primitive civilization is found to have persisted till the other day among the aborigines in Melanesia and Australia. They practised cannibalism and afterwards restricted to juridical, alimentary or Magical purposes. The Narranveri tribes of the Lake Abert area in South Australia were found to hold in great esteem a drinking cup made from a female cranium. Ordinary water-cups were made from the crania of their enemies by other tribes of Australia. European explorers have found an axe once used by the tribesmen of New Caledonia to quarter corpses in cannibal feasts. The instrument consists of a blade of jade fixed to a wooden handle, the handle being strongly bound by a red painted cord of coconut fibre. At the end of the handle half a coconut is artistically bound to give a round swelling appearance. Another instrument found was a fork made out of the human bones of the fore-arm, which was obviously used for extracting the intestines in cannibal feasts. It was made by sfrongly binding together each end of the two bones by a cord of fibre. According to G. H. Giglioli this fork was used in the cannibal feast that followed the massacre of Corporal Vainier and five French soldiers on October 17, 1868 in New Caledonia. From North-West coast of New Brittany came a Palm-wood poniard fixed into a human humerus. From New Hebrides came a Spatula

carved from a human femur and was used by a chief of a tribe for scraping coconuts. From the same place came a Lance point made from a human tibia. From the Vitti Levu Islands came a club, carved from hard, heavy wood and the human teeth being fixed into some natural holes in the wood.

In Admiralty Islands Woman's radius was worn on the shoulder as an amulet and the ulna of a woman was worn round the neck as an amulet. In Nares Bay humerus of a Woman was worn round the neck as an amulet. These objects were worn by the use of a cord of fibre. Evidently these tribes in Australia who wore these objects seem to have believed in the magical properties of the human bones. From New Guinea we have a red painted mandible of a husband worn by the widow round her neck, a sacrum of a husband also worn by the widow round her neck and a human mandible adorned with feathers worn as a bracelet by a woman. A male Cranium without mandible, painted red and wrapped in bark was found preserved as a trophy by the head—hunting tribes in New Guinea.

These tribes in Australia and Melanesia had the totemic and matriarchal cultures. They performed magical rites during the moments of life-birth, death and initiation ceremonies, etc. They believed that by eating a portion of the corpse, part of the virtues of the dead man such as courage would pass on to the eater. The witch-doctors also practised cannibalism because they believed to acquire superhuman powers by eating human flesh. They employed acts and gestures in magical rites as means to transform their desires into reality soon after their utterance. From New Caledonia came a shell used by the above tribes as a trumpet on ceremonial occasions.

The primitive natives of remote mountain areas of the Philippines are found to have not stopped head-hunting, cannibalism and witchcraft till very recently. During the World War II scores of Japanese invaders found this out to the

cost of their life. One of the reasons leading to head-hunting is the belief of the primitive peoples that immunity from evil spirits and prestige of a person depend on the number of human heads collected by him. The head-hunting was often a source of tribal warfare. Now except in few islands and mountain regions, the head-hunting has been completely stamped out in South East Asia and in the Pacific Islands.

A religious and social institution known as totemism was found scattered over a great part of the world. The word "totem" came fron the tribal group of Algonkin in North America and the word approximately means supernatural helper or friend. Most primitive races found the qualities of their own nature as common also to the animal Kingdom. The various clans in a tribe were called themselves as the bear clan, the wolf clan, the eagle clan and so on. The qualities of the animals such as speed, strength and cunning might have made them to admire and consequently led them to the appropriation of animal names. The important features of the totem institution are usually the respect for the totem animal it its natural state and the prohibition of the species as food. Members of the clan often decorated their bodies with tattooings or paintings representing or symbolizing their totem. In magic or dramatic performances they used to personify their totems by wearing masks. Wedding within the totem group was strictly forbidden.

Here it will be relevant to add something about the results of Lewis Henry Morgan's investigation into ancient society. In the nineteenth century A. D. it has been found the native people of Hawai Island in the Pacific persisting into the status of savagery. The food *gathering* economy of the people of Palæolithic Age corresponds to what Morgan terms *savagery*. A Hawaiian male used the word *Waheena* to to denote his wife, brother's wife, wife's sister, father's brother's son's wife and mother's sister's son's wife. A Hawaiian female used the word *Kane* to denote her husband

or her husband's brother. She uses the word *Kaikoeka* to represent her brother-in-law, her father's brother's daughter's husband and her mother's sister's daughter's husband. The Hawaiian male calls his father as well as his father's brother and mother's brother by the word *Ma—Ku—a Ka'—na'*. Morgan thinks that this is not due to the poverty of their language or indifference to relationships exercised but due to its being the vestige of an anterior family system which he terms as *consanguine* family. The main character of the savage consanguine family is the intermarriage of brothers and sisters, own and collateral, in a group. According to him 'the consanguine family was the first organised form of society' and was 'an improvement upon the previous unorganised state, whatever that state may have been.'

The above described Hawaiian system of grading and calling the relationships was found among the Rotumans, the Marquesas Islanders, the Maoris of New Zealand, the Samoans, the Kusaiens and King's Mill Islanders of Micronesia and in every inhabited island of the East Pacific by the nineteenth European and American explorers. When the American Missions were established upon the Sandwich Islands, the missionaries including Rev. Hiram Bingham (who gave us the account) were suddenly introduced to a phase of ancient society where they found the punaluan family, with own brothers and sisters not entirely excluded, in which the males were living in polygamy and the females in polyandry.

In the course of human progress the punaluan family emerged out of the consanguine family as a result of modification of the latter by the gradual exclusion of own brothers and sisters from the marriage relation, the evils of which the savage people had observed by the time. The system seems to have originated among some tribes and through immense expanse of time became general among the savages and persisted till recently among some tribes who were still in savagery. The Punaluan family is found to have existed in

Europe, Asia and America within the historical period, and in Polynesia within the nineteenth century among the tribes of mankind who were in the Status of Savagery. In some instances, the system remained among the tribes who had advanced into the Lower Status of barbarism and in the case of Britons, among the tribes who advanced even into the Middle Status of barbarism.

In 1860 Judge Lorin Andrews, of Honolulu, wrote a letter describing the Hawaiian Punalua custom. The Hawaiian word Punalua is equated by him to *dear friend* or *intimate companion*. The Hawaiian calls the husband of his wife's sister Punalua (intimate companion). Where the wives were sisters, own and collateral who were jointly intermarried with their husbands who were not brothers, the sisterhood of the wives was the basis upon which the family was formed, and their husbands stood to each other in relationship of punalua. In the same way a Hawaiian woman calls the wife of her husband's brother punalua. Where the wives were not sisters of each other, but who were jointly intermarried with their husbands who were brothers, own and collateral, the wives stood to each other in the relationship of punalua. The punaluan family derived its name from this Hawaiian relationship of punalua.

Morgan cites a statement of Cæsar about the marriage customs of the ancient Britons, in which the latter observes that, "by tens and by twelves, husbands possessed their wives in common; especially brothers with brothers" as the most remarkable illustration of punaluan custom. The early navigators who visited the coast of Venezuela found among the native tribes a state of society in which, according to them, men "took as many wives as they would", and women "as many husbands, quitting one another at pleasure, without reckoning any wrong done on either part." This state of society suggests for its explanation the punaluan family.

According to morgan both consanguine family and the punaluan family originated and widely prevailed during the period of savagery which he dates from early human life till the invention of the art of pottery. Archæologically speaking the early Palæolithic people had the consanguine family and the late Palæolithic people the punaluan family.

Another source of information about the life of Palælithic men is archæology itself. But the evidence of stone tools in the Palæolithic India takes us a very small way in visualizing the life of their producers. However, the other parts of the world have contributed something more. A knowledge of the life of the men in Palæolithic Old World will help us to have a comparative knowledge of the life of their counterparts in India.

Men lived to see quite substantial changes in the landscape and the configuration of the earth's surface. They witnessed very important hills thrown up by the folding of their planet's crust. For instance, the separation of Britain from the continent by the channel during part of the pleistocene and the opening up of the Rift Valley in Africa. Men had seen Mediterranean and the Red Sea as great valleys, probably with some lakes in their deeper parts.

It is supposed that all early hominids were just food gatherers. Their first tools were not specialized to specific ends, and these roughly—chipped flints were used to dispatch a tiger as well as to scrap the hairs of man's hide or dig up roots. Hand-axes served as well for hunters' weapons as for digging up edible fruits. As animal bones are found split deliberately in the cave of Sinanthropus (Peking man) that odd hominid is suggested to be carnivorous. He is even assumed to have been a cannibal since among the bones thus deliberately split are those of hominds too. Perhaps all hominids may have been omnivorous. What they learned by experience and transmitted by social tradition was what was safely edible food and what was poisonous.

In Europe the Lower Palæolithic industries had immense duration—from about 500,000 years ago to about 40,000 years ago. Skulls and bones of an extinct species of man came from Neanderthal among other sites and from that place these strange—looking creature are termed Neanderthal men. They perhaps dressed skins and wore them. They were right-handed men. They lived about 100,000 years ago and must have endured in Europe for thousands of years. These people were not considered ancestral to the human line.

The Neanderthalers and their other middle Palæolithic contemporaries are credited with positive contributions to man's culture. They had a more varied and differentiated tools than their predecessors. They possessed specialized weapons as spear-heads and distinct implements for scraping and chopping. The tools are usually made from flakes. Neanderthalers lived by hunting the mammoths, woolly rhinoceros and other thick skinned animals that browsed on the tundras along the margins of the European ice-sheet and in Siberia. They must have probably hunted together as organized packs, as otherwise such big game could not be pursued profitably by small isolated groups. From this Childe thinks that the economy of Neanderthalers required some social organization.

Neanderthal men buried their dead children and relatives in specially excavated graves, occasionally placing stones to secure from the pressure of the earth. The graves are normally situated in the caves that the living used for homes. Sometimes they were dug near to hearths. Joints of meat and tools were buried with the dead body. These burial practices indicate that even the rude Neanderthaler had an ideology. Heaps of bones and skulls, particularly of cave bears occured deliberately arranged in some Alpine caves. The ceremonious arrangement suggests the rites still performed by the hunting tribes in Siberia to avert the wrath of the bear spirit and ensure the increase of the bears to provide

game. So, hunting magic existed before the last Ice Age.

In 1921 from Broken Hill in South Africa came a skull together with pieces of a skeleton which seemed to archæologists to be a relic of a third sort of man, intermediate in its characteristics between the Neanderthaler and the human being. This Rhodesian Man of around 50,000 years ago is said to be of the late Palæolithic.

Signs and traces of folks who are indisputably kindred with ourselves and who lived perhaps 40,000 years ago have been found in Western Europe, particularly in Spain and France. They produced a great variety of tools, much smaller in scale and finer than those of the Neanderthalers. Archæologists have classified these tools as Upper Palæolithic. The use of bone and ivory for tools and distinctive traditions in flint-work are found common to all the above folks. The economy of the Upper Palæolithic societies was savage inasmuch as they lived on hunting, fishing and gathering.

'The bow, the first composite mechanism devised by man', was invented during the Upper Palæolithic period and was used by the European and Asiatic folks. Another mechanical device used by the Upper Palæolithic people, particularly Magdalenians was spear-thrower. Men had now perforated antlers, bones and flat stones with circular holes, paving the way for such important inventions as the wheel. The Magdalians used hook to catch the fish and 'harpoons' of reindeer antler to line or spear them.

The Upper Palæolithic men lived in tents made of skins or in 'houses' dug in the soft loess soil and roofed by skins and turfs which are similar to the houses of the arctic hunters of twentieth century A. D. They burned bones, as wood was rare, to protect them against cold. From the finds of scrapers presumably used to prepare the needles for sewing the skins together, archæologists have deduced that the Upper Palæolithic people made clothes of skins. Moreover, a statutte found in Malta in Siberia seems to be clad in a trousered suit of furs

similar to those worn by Eskimos. At least 25,000 years ago the Upper Palæolithic people to increase their beaty painted their bodies and collected shells or animal's teeth, pierced and a strung together to make necklaces.

Grimaldians and Cro-Magnons buried their dead bodies providing them with food, tools and ornaments. As the bones are found reddened with ochre, it is assumed that the mourning relatives had sprinkled the corpse with the red powder, a practice found still persisting even after 20,000 years or more. The Gravettians carved little figures of women out of stone or mammoth ivory, or modelled them in clay and ash which archæologists term Venus figures. These Venuses are usually hideous with no faces in most cases, while the sexual characters are always emphasized. Wamiatnin suggests that they were used for puppet plays imitating the generative process by which the savages thought that they could magically cause the generative process among men, and among animals to secure the multiplication of game to hunt.

Archæologists say that these people owned and enjoyed in common the food obtained by hunting and fishing while they held weapons, vessels and finery as personal properties. The *Homo Sapiens* of ten thousand years ago were comparatively much less in numbers. Even in the twentieth century A. D. the aboriginal population in the whole continent of Australia is estimated never to have exceeded 200,000. During the first thousand years of the Upper Palæolithic phase the *Homo Sapiens* remained a rare animal on the earth. The savage life of *Old Stone Age* is found still practised by a few backward and isolated tribes in the forests of Central Africa or Malaya, in the deserts of north-western Australia and South Africa, and in the Arctic regions.

Life in Neolithic Phase

The climatic crisis that ended the pleistocene period caused the melting of the northern ice sheets converting the steppes and tundras of Europe into temperate forests while the prairies south of Mediterranean and in Hither Asia into deserts with oases. This change in natural conditions helped men to escape from the economy of savagery. Now, while men hunted, women are supposed to have gathered among other edibles the seeds of wild grasses, ancestral to barley and wheat. The collection of the seeds of wild grasses was a decisive step towards cultivation and it soon led to cultivation of food. About the same time the hunters instead of killing all the animals off-hand began to tame some of them and make them dependent to serve as reserves of food and skins. In the course of stock-breeding men learned that cows, goats and ewes can be induced to give milk which can be used as food and selected varieties of sheep can be used to provide woolly fleece to warm their bodies. This phase of human history during which plants were cultivated and animals domesticated while stone implements were used is called Neolithic. The Neolithic Age or *New Stone Age* started approximately 10,000 years ago in Middle East and spread slowly over the world, perhaps except America where an independent discovery of agriculture is suggested.

The Neolithic woman discovered a process to produce pottery. She moulded clay into vessels and heated them to become pots. Her remarkable discovery involved the chemical process in which by heating friable and plastic clay the 'Water of Constitution' is driven out from the hydrated aluminium silicate (the principal component of clay) producing a hard substance no longer disintegrated by water. She also began to convert natural fibres, wool and flax and later also cotton and silk into threads by the rotary motion of spinning. The loom was then invented by using which the women folk wove fabrics from these threads. These barbarian women also

began to make the flour into bread, in which process is involved the biochemistry of baking, that is, the use of the micro-organism called yeast. These inventions and discoveries are attributed to womenfolk by virtue of ethnographical evidence. The Neolithic people usually lived in built huts of mud, stone, reeds, logs or withies plastered with clay.

Archæology discloses a number of distinct Neolithic cultures. The economy of the Neolithic culture is known as barbarian. Tha preliterate barbarian societies have discovered not only food plants of barley and wheat, but also of rice, millet and maize and many other plants that are cereals or not. The early Neolithic farmers had to change their plots of cultivation as a plot did not yield a good crop for more than two or three consecutive years. When all the plots round the village has been used up, the Neolithic cultivators shifted bag and baggage to start again on virgin soil. This sort of cultivation method was adopted by the Danubians in the prehistoric Europe and is still followed by some tribes in Africa such as Lango, the hill tribes of Assam and other folks. This method of cultivation accounts for the worldwide expansion of Neolithic cultures. Archæology has revealed communities of Neolithic culture dispersed over Europe and Asia including Ireland and China about four thousand years ago. The Amerinds did not have a true loom, and stock-breeding was almost strange to them. Barbarian societies comparable to these Neolithic societies live or lived very recently in the Americas, round the Pacific and in parts of Africa. In late Neolithic times the farmers began to manure the plots to prevent exhaustion and that explains the successive settlements found built upon the same site in Greece and the Balkans.

For breaking up the ground the prehistoric Danubians and perhaps the European and Asiatic peoples used hoes. Many of the African tribes even to-day prepare the ground with a hoe. The Natufians and Fayumis are found to have used sickles composed of flint teeth set in a straight wood or

bone handle, or in a beast's jaw-bone or a wooden imitation of jaw for reaping cereals. Grinding was done by pounding in a mortar, but the normal process was to rub the grains on a saucer-shaped or saddle-shaped stone with a sausage-shaped or bun-shaped rubbing-stone. The Neolithic villages or hamlets are found to cover areas between 1½ and 6½ acres. The Skara Bræ village in Orkney comprised eight households. The Neolithic villages comprising twenty-five to thirty-five households have been found in Central Europe and Southern Russia. In Western Europe and in the Balkans many Neolithic villages have been found surrounded by ditches, fences or stockades. These protections against forocious animals or human foes suggest a collective effort.

The savage communities continued to exist side by side with food-producing barbarians. The food-producers bartered agricultural produce with gatherers and hunters in exchange for jungle products and game. The Neolithic societies were much larger and more numerous than the Palæolithic groups. It is said that the food-producers conquered new lands at the expense of food-gatherers. Stone battle-axes and flint daggers are found among the funerary furniture in the later Neolithic times in Europe. Most Neolithic producers buried the dead in cemeteries or near their houses with more pomp than the Palaeolithic hunters.

The Neolithic communities in Iran, Syria, Egypt, south-eastern Europe and in the Mediterranean coasts and occasionally in England moulded female figurines in clay or carved in stone or bone. These are generally interpreted as images of the 'Mother Goddess,' the symbols, worshipped for fertility. These figurines are suggested to be the direct ancestresses of images of admitted goddesses produced by the historical communities in Mesopotamia, Syria and Greece. The phalli of clay or stone that were made in Anatolia, the Balkans and England are interpreted to represent the male partner in fertilization. The grain-growers also believed that a ceremonial union of both sexes would effect the fertilization of nature.

The early agricultural societies are said to have practised incantations and witchcrafts. It is also suggested that whenever seed-time came round the Neolithic people of 12,000 to 20,000 years ago usually performed a ritual sacrifice in which a respectable youth was immolated. To reckon the seed-time for sowing and sacrifice they are said to have studied the movements of moon and stars. They are also supposed to have developed a belief in the fear of uncleanness and pollution and developed methods of cleansing. This points to demonology in which among others an unclean person is easily attacked by a demon. The Neolithic people made mummies of their dead and used Swastika as a luck symbol.

Kolarians

Among the most ancient peoples whose descendants are extant to-day, the earliest people to inhabit India were the Munda or Kolarian speaking people. They belong to the Austric-speaking Proto-Australoids who were a very ancient off-shoot of the Mediterranean race. The speakers of Munda languages are mostly dark-skinned aborigines and are now found in the Mahadeo hills (Kurku tribe), in Assam (the Khasis), in the Jaintia hills (Pnars or Jaintias—also called Syntengs) in Chota Nagpur (the Sonthals—about 3,000,000) and in Malabar (Panians). Pnars have a darker complexion and follow the matriarchal custom more strictly than the Khasis. The Mongoloids who effected a change in the physical features of the Khasis adopted the language and customs of the later, probably owing to the rigorous matrilocal system of the Khasis. Some scholars account the changes in the phonetics and vocabulary of the language of the Indo-Europeans for their mingling with the Munda peoples. The Kolarian languages are related to thè Mon-Khmer family of languages found in Indo-China.

It is said that the Sumerian language of Chaldea is allied to the primitive Austric. One scholar says that many simila-

rities found between the Khasis and the Chaldean Syro-Malabar community are probably due to their ancient kinship. The excavations conducted by Sir Leonard Wooly and others at Ur in Mesopotamia have produced necklaces believed to be borne by the ancient Sumerian women and they are observed to be exactly similar to those used by the Khasi girls in Assam and the Syrian Christian girls in Malabar. The migration of the Austric-speaking Proto-Australoids seems to have started from the Western Asia and to have pushed eastwards and southwards. So it is probable that the Proto-Australoids in treck to India left behind some of them or that some kinsmen of them migrated to Mesopotamia and inhabited there. It is said that from India the Austric speech spread into South East Asia and some islands of the Pacific.

At least a hundred years ago Khasi villages were said to represent the Neolithic agricultural civilization. The use of beasts of burden, roads, script and an all-tribal state were unknown to them. Even bronze and copper seem to be alien to them. They probably belonged to the pre-Bronze Age. At a very late period they certainly began to practice iron-smelting and black-smithery. As indications of any intermediary Bronze Age traditions among them are not yet detected, the Khasi people seem to have undergone a sudden transition from Neolithic to Iron Age.

According to anthropologists pre-historic Polynesian group of people which spread out to Malaya, Indo-China and even Australia belonged to the Mon-Khmer group. Three skulls probably belonging to this stock of people are found in the excavation of the ancient city of Mohenjo-daro dated about 2,000 B. C. This group of people had no scripts and so they might have left Western Asia before 3,000 B. C. when the people of that area are found to have had scripts. They entered India at the latest in the fourth millennium B. C. They seem to be related to the Elamites since both are negroid and both preserved the matriarchal system till a very late period.

Chapter II

EARLY BRONZE AGE

Agriculture had been established by 5000 B.C. in Mesopotamia and Persia, by 3000 B. C. in Western India and by 2000 B. C. in North China. The Art of agriculture seems to have been introduced into India from the West. Rice cultivation probably entered into China from India. The formation of agricultural communities made possible for man to accumulate some surplus material resources, to increase his leisure and stimulate the activities of other craftsmen on his behalf. The history of the early agricultural communities in India can be better understood against the background of the knowledge of the sequence of prehistoric cultures in Persia and Mesopotamia.

Origin of Bronze Age

In the absence of river inundation to provide fresh mud each year, even the primitive hoe-cultivation soon exhausts the land. Hence the population had to seek new fields every few seasons though they re-visited the old sites regularly. Thus in an ancient settlement site, village after village was built and rebuilt on the ruins of its predecessor, until a mound or 'tell' is formed which may come to the height of a hundred feet. According to the archæologists, excavation of such a 'tell' may give a sequence A, B, C, D from the first to the last occupation on the site. The archæologists have adopted different methods of naming the sequence apart from the above-mentioned one. Each phase of the sequence is marked by innovations in tool types, pottery patterns and burial customs. Such a sequence has been found in

Mesopotamia covering about five prehistoric periods before the Early Dynastic period of the Kingdom of Sumer which appears to begin from 2800 B. C.

In Mesopotamia a mound known as Tell Hassuna was excavated which has revealed the most ancient agricultural community known in the country. In the earliest level of the Tell, were found abundant bones of cattle and sheep, stone rubbers, pestles and mortars for grinding or pounding corn into flour. There were stone hoes with traces of bitumen that fastened them in their handles. There were also hand-made pottery ornamented with incised lines. The people who camped on the site are found to be semi-settled people who have perhaps used tents for habitations.

On the top of the old camp-fires were seen little houses built of the tempered mud. These houses had rooms, including a kitchen with its bread oven and storage jars, set round a courtyard. Sickle-flints of Natufian type were also found in the village. (In Natufian sites in Western Asia, dated before 5000 B. C., well-made sickles used to reap wild seed or grown grain were found).

A settlement similar to those of Hassuna was found to have existed at the base of the Tepe Sialk mound in Northern Persia. There were found slotted bones supposed to have formed part of sickles of Natufian type and stone hoe-blades. Hand-made pottery was found painted with black designs. A burial was found with a man holding a polished stone axe in his hands. The people were in the Stone Age without permanent dwellings. In the succeeding layer above these remains were found human settlements with mud-built houses. Small objects made of copper were found in this layer of the Tell.

These sites indicate the transition in the life of ancient people from a hunting, semi-nomadic way of life to that of a settled agriculturist.

At the end of the Fourth Millennium B. C. the potters' wheel was said to have been invented in Western Asia. With

the help of the wheel an expert hand could produce a perfectly symmetrical vessel within a few minutes.

But immediately after the establishment of the agricultural way of life the ancient prehistoric communities of Western Asia made a discovery of far-reaching consequence. They found that certain stones under the heat of firing can be hammered or cast into any desired form and get on a sharp cutting edge. This discovery of the relationship between copper ore and the metal is the basis of all metallurgy and chemistry. The copper objects such as little pins, awls and bits of wire found at Sialk were made by hammering and cutting from the unmelted native metal which had been picked up from the surface of the land.

Fairly soon it was discovered that copper can be smelted from the ore by heating the ore in a closed kiln. By the time the pottery makers had already discovered that to control the exterior colour of pots, and moreover to paint them with patterns, a closed kiln is absolutely necessary. Thus the open air bakery of the simple rough pots was improved into a closed kiln and the closed kiln in turn was evolved into a smelting furnace. A temperature of 700° to 800°C., in an atmosphere in which access of oxygen is prevented, is required to smelt copper from the ore. The closed primitive pottery kilns provided almost these conditions. After a long time copper metal itself was melted and cast into desired form. To melt copper a much higher temperature, 1085°C., is needed and the further development of furnace types required to produce such a high temperature seems to have taken place in Mesopotamia.

Archæologists have made use of painted potteries excavated in Western Asia to classify the various prehistoric cultures of Mesopotamia and even more of Persia. Designs, styles and colours of the painted pottery are found to be distinctive feature of the prehistoric cultures of Western Asia and Baluchistan. The discovery of the technique of pot-painting

and the necessary elaborate kilns for baking the painted pots seems to have been made in the highlands of North Persia, Northern Mesopotamia or Syria. American archæologist Donald McCown has grouped these painted wares into the Buff Wares and Red Wares, distinguished by a predominantly buff or red background to the painted design.

Bronze age Cultures in Baluchistan

The earliest known agricultural communities of India have been found to have existed in the mountainous area of Baluchistan and the desert area of Sind (now in Pakistan). They seem to have flourished from the early third millennium B. C. and have connections with Bronze Age cultures of Western Asia. In those ancient times, in Western India, there was heavy rainfall and the climatic conditions were very favourable for human habitation unlike those of to-day or even by the time of Alexander. This has been borne out by the appearance of abundant kiln-burnt bricks which necessarily indicate the existence of extensive forests grown up by heavy rainfall. A large series of artificial stone-built dams and terraces, clearly intended to aid irrigation of fields, also reflect the climatic conditions with heavier rainfall. These dams and terraces have been identified by Sir Aurel Stein.

In the archæological explorations in Baluchistan Sir Aurel Stein and others have discovered so many ancient cultures to have existed in different sites, and Stuart Piggott has grouped them under the names taken from sites where the culture can be well identified. The cultures have been classified on the basis of the techniques employed in pottery-painting. *The Quetta Culture* (from sites in the Bolan Pass), *The Amri-Nal Culture* (from a site in Sind and another from Nal Valley in Baluchistan), *The Kulli Culture* (from a site in Kolwa in South Baluchistan), *The Zhob Cultures* (from sites in the Zhob Valley of North Baluchistan) are the four main groups of cultures. The Zhob Cultures belong to Red-Ware class of cultures and the rest to Buff-ware class of cultures.

The pottery recovered from the sites in the immediate neighbourhood of Quetta is painted in a purplishbrown ('black') paint. The absence of red colour in it is peculiar to the sites as in elsewhere in Baluchistan two-colour schemes in black-and-red are usual. Beakers with a slightly flaring mouth, shallow dishes and squat biconical or globular bowls represent main shapes of the pots. Animals or plants are not represented on them. The Quetta Ware has its precise parallels in a group of early pottery from sites in Fars province of Persia, notably at Tal-i-Bakun and may be eqully early in date. The Quetta Culture seems to be the earliest in Western India and contemporary with Susa I culture of Mesopotamia and Giyan V and Sialk III cultures of Persia. The Quetta Culture perhaps originating somewhen in the fourth millennium persisted into the third milleanium B. C.

The pottery types identified by Majumdar at Amri in Sind, those in the cementry of Nal in Baluchistan excavated by Hargreaves and those in the site of Nundara discovered by Stein in South Baluchistan are found to be really linked and remarkable by the absence of clay figurines of animals or humans. So these three phases of culture are treated under the composite title, the Amri–Nal Culture. The settlements seem to be of an average size of under two acres as was the case with some of the prehistoric sites of Mesopotamia. A small settlement at Kohtras Buthi in Sind has fortifications built across the base of the spur which take the form of double walls, curved and of massive construction and 250 feet apart. There are traces of a defensive wall also at Dhillanijo-kot in Sind. In some of the Sind sites a couple of courses of stones formed the foundation of the buildings and mud brick or pisce their walls. But coursed stone slabs set in mud mortar were used for the walls of houses probably up to window height at Kargushki-damb, Nundara and Rodkan in Baluchistan.

At Nundara an individual building was found to be a block of about 40 feet square within which were large rooms or

courtyards of sizes varying from 15 by 15 feet or 15 by 10 feet, to small compartments 8 by 5 feet or less. The bricks used at Nundara measure 21 by 10 by 4 inches each. Here the refinement of white plaster over the inner faces of stone and mud brick walls was noticed.

Rooms of the sizes at Nundara seem characteristic of the Sind sites also. A bath occupying a corner of a room, and the remains of a stairway implying access to a flat roof or an upper storey were found in a house at Kohtras Buthi. Traces of the wooden lintel of a doorway was observed at Kargushki-damb, and at Rodkan was found a window, 1 foot 4 inches wide, its top being formed by overlapping corbelled courses of stone. At Nundara the width of roadways between houses was 6 to 8 feet and at Lohri and Kohtras Buthi 3 feet to 2 feet 6 inches.

In the Nal cemetery between 30 and 40 burial groups were excavated by Hargreaves, apart from some another 40–50 burials from which 300 odd pots were found by unscientific diggers like Colonel Jacobs and others. Such a large number of burials in one cemetery shows a settled community of some length of time. This is attested also by the superposition of two layers of burials noted by Hargreaves. The dominant burial rite at Nal and at Damb Buthi was inhumation—'fractional' burial of fragments of the skeleton, probably after previous exposure and disintegration. But at Nal one adult and three infants in the same part of the cemetery were with complete skeletons and were enclosed in rectangular mud-brick graves, the size of the individual bricks measuring 21 by 9 by 3½ inches. But generally, at Nal, burials were placed in the earth without any protection. At both sites the grave-goods with the fractional burials included mainly pottery vessels. Bones of sheep or goat were found in about six graves at Nal and bones of ox at Damb Buthi. One burial at Nal contained a flat copper axe. Not directly connected with the fractional burials, a large number of beads were

found at Nal. The Sind site was distinguished with shell and pottery bangles.

At Nal and Amri pots of pale paste were found in abundance. But at Nal a limited number of grey or even dark-brownish colour were found either unornamented or with motifs in relief or light paint. The vessels are normally wheel-turned. Animal or plant forms are represented on the Nal ware. They are not found on the Amri pots. The decorative motifs of pots of Nal and Nundara and of Amri ware are in common firmly outlined in black or brownish paint. In Amri and the Nundara group of sites red paint is applied as a secondary colour. The typical use of blue and yellow colour in the Nal ware to augment the red paint is almost unknown elsewhere in prehistoric Western Asia. The pots from Nal lack several patterns which appear in pots from Nundara, Amri and other sites. Lions, fishes and birds are represented in Nundara ware. At Horkalat occurs a single representation of an ox. Another remarkable thing is the heart-shaped motifs designed after the leaves of the pipal tree occurring on the ware. The pipal tree seems to be a holy tree even in prehistoric India and the above motifs may owe their origin to the influence from the Indus Valley.

At Nal a cemetery was found dug into a house of the deserted settlement. In the cemetery two hoards of copper tools were found, one in Room A3 and the other in Room A5. The first contained three flat axes with unsplayed edges and tapering butts, a long chisel with parallel sides and unsplayed edge, and a fragment of a tapering axe or chisel. The other contained two axes with slightly splayed and curved cutting edges and long narrow butts, a chisel or axe with slightly splayed edge and a very long bar-shaped butt, a saw with a straight side, fragment of tanged knife or spear-head, and part of a knife. These copper implements might have been made from a local Baluchi ore.

Stamp-seals of the ancient Bronze Age cultures of Persia

and Mesopotamia were absent in Western India cultures, except in that of Harappa with its distinctive square seals. Biconical or barrel-shaped beads made of agate or carnelian and beads of lapis lazuli were found in some abundance in the Nal cemetery. An artificial paste with glassfrit known as faience—a substance well-known in the Harappa culture—was used for making beads at Nal. One agate bead and one lapis lazuli bead were found in Sind sites also.

The small settlements of the people of Amri-Nal culture, with houses built of stone or mud brick, are similar to those of Kulli or the Zhob Valley people. The absence of burnt bricks imply that any contact with the Harappa Culture was not of so fundamental a character as to introduce the use of burnt bricks for building the houses. The Amri-Nal Culture with the other Baluchistan cultures has a generalized resemblance to the village or urban cultures in Western Asia in the prehistoric periods. These Baluchistan cultures, it is suggested, emerged from those of Western Asia.

The style and painting of the Nal pottery is distinctive from most Western Asiatic painted pottery. The pottery from the Fars have only generalized resemblance in motifs to those of Amri. The drawing of the animals on the Nal and Nundara pottery seems similar to the outlines found on engraved bone and shell plaques in Early Dynastic Sumer. Therefore the Amri-Nal Culture is found to have a vague Iranian origin and almost independent developments in its later phases. There is also a suggestion that the later developments are due to contact with the Harappa Culture. The Amri-Nal Culture seems to have begun in the fourth millennium and to have persisted into the middle of the third millennium B. C., the Amri phase being the earliest and the Nal phase the latest.

The Kulli Culture identified in Western India is the third distinctive culture belonging to the Buff-ware class. It is distinguished mainly on the basis of a very characteristic

painted pottery style and is known from sites in South Baluchistan such as Kulli in the Kolwa district, Mehi in the Mashkai and one site in the region of Korakan River. Like the Amri-Nal Culture, the sites characterized by Kulli ware are normally tells and the size of typical settlements is also not greater than two acres. The building material usually employed at Kulli was stone, varying from rough rubble masonry set in mud mortar to squared shale and sandstone ashlar blocks.- Such material was probably brought from about two miles away from the site. At Mehi mud bricks were used in addition to stone and at Shahi-tump mud bricks measuring each 19 by 10 by 3 inches were used for an upper structure of a wall while stones were used for the foundation of the wall. At Kulli, too, as at Nundara, the refinement of white plaster over the internal face of the stone walls was observed. The sizes of the rooms at Kulli were found varying from 12 by 8 feet to 8 by 6 feet. The lower treads of a probable stone stairway found at Kulli suggest an access to a flat roof or to an upper storey.

The decorative paintings on Kulli ware consists of zones of non-representational motifs and a frieze of naturalistic representations of animals and plants between these motifs. The frieze usually represents humped cattle in elongated from, very stylized goats and a landscape with formalized trees. W-shaped figures above the figures of major animals seem to be of conventionalized birds. The figure of a tree with stylistically heart-shaped 'pipal' leaves is represented on a sherd from Mehi. The presence of this 'pipal' leaf on the native pots implies the introduction of motifs from Harappa.

The painting on the vessels is entirely in black with a flexible brush. The cattle represented are the typical humped form (Bos indicus) found in all the prehistoric cultures of Western India. The eye of the animal is drawn as a full circle of white round a black disc and the whole body fantastically elongated. However, realistic detail is given to the legs

and hoofs. In some of the more degenerate forms the naturalistic details cease to exist and the body becomes globular rather than lengthened. Goats are often represented with the cattle on the vase-paintings very stylistically with curved, swept-back horns. Fishes following one another head-to-tail in a narrow circular zone are represented on shallow plates. A dot within a circle or oval is another pattern of 'eye' motif. Broad horizontal bands above and below the main decorative zone of the ware are painted in red as a second colour.

A remarkable feature of the Kulli Culture is the frequent appearance of baked clay figurines of women or of cattle. At Kulli, in the restricted areas where Stein dug, 66 cattle figurines were found and in a restricted area on the lowest occupation-floor at Shahitump appeared another 85 figurines of cattle. The latter seem to be offerings massed at a shrine instead of the stock of a toy-shop. The figures suggest the characteristic features of the humped cattle and are 3 to 4 inches long. Their bodies are painted across by vertical strips and their eyes are also painted in. There are, in addition, model birds, often hollow and with a hole at the 'tail' which can be blown to produce loud hooting noise. These bird-wistles in Kulli sites probably originated from the Harappa Culture in which they are more common.

The female figurines are widespread among the sites of Kulli Culture and are less abundant than those of cattle. They end at the waist in slightly splayed, flat-bottomed pedestal. They have eyes made from centrally pierced applied pellets. The mouth is not indicated, and hands rest on the hips. The breasts are shown on some figurines while indications of breasts are not given at all beneath the heavy strings of beads which some other clay figurines are very often represented as wearing. In most cases hair of the female figurine seems to have been dressed to a high pile of curls in front, and held back by a fillet over the forehead, the greater portion being looped into a thick, heavy tress resting on the nape of

the neck. The beads around the neck, necklets with or without a series of hanging oval pendants, and long strings of beads with a central pendant reaching to the waist, are some of the ornaments represented on the figurines. Conical ornaments are shown worn over the ears. On the wrists and arms are shown bangles and armlets respectively. These crude clay models enable us to reconstruct with some accuracy what was the appearance of a young woman of Kulli Culture in her finery.

At Mehi appear several types of vessels carved out of soft stone. Among them are small cylindrical vessels between 2 and 3 inches across and about 2 inches deep; one larger pot, 4 inches in diameter, divided into four compartments; another square vessel also divided into four compartments; and few simple cups. Some of them are engraved with patterns of chevrons and hatched triangles. Vessels similar to these from Mehi are represented in the sites in Western Asia and Mohenjo-daro implying that this group of pots has connexions with Mesopotamia to the West and Harappa to the east.

A circular disc of copper 5 inches in diameter is a mirror find from the Mehi cemetery and compares with the mirror in the earliest cemetery at Susa in Elam and also at Mohenjo-daro. But Mehi is distinguished by an outstanding copper mirror, 5 inches across, with a copper handle representing a stylized trunk of a female figure in the model of the clay figurines, the head of the figure being added by the reflection of the user of the mirror. Though this kind of mirror is familiar in Egypt from about 1570 B. C., it is unknown in Western Asia and Harappa. This mirror can be suggested as an indigenous product from the very close similarity of its handle with the clay figurines of women from the same site. The handled types of mirrors that appeared at Mohenjo-daro are without any distinctive shape to the handle.

Stone-saddle-querns and riders occur at Kulli suggesting corn-growing. A polished purple-red and white variegated

stone, 8 inches high and 4 inches across the base, suggested to be a 'ritual pillar' and a fragment of sheet gold are among the finds from Kulli. Clay bangles, two copper pins and fragments of simple copper bracelets were found at Mehi. When Stein cut a trench through a cremation cemetery at Mehi, cremated bones deposited either in pots or directly in the soil were found. In one burial six skulls of children were found placed over a single cremated adult. Grave-goods contained pottery, clay figurines and copper object. Cremation seems to be the probable rite in the Kulli Culture.

At Ghazi Shah and at Rohel-jo-Kund, in Sind, occur vessels on which are painted animals in Kulli style, though the pots are not themselves Kulli ware. At Ghazi Shah are found pots with a background of bright red slip characteristical of the painted vessels of the Harappa Culture. We have seen earlier that the decorated stone vessels observed in South Baluchistan in association with Kulli Culture were occasionally imported to Harappa. The heavy loop of hair carried over the nape of the neck, a couple of bangles worn at right wrist and bracelets loaded from the wrist to above the elbow of the left hand represented on a bronze figure of a dancing-girl found at Harappa are similar to those seen on the Kulli figurines. It is suggested that traders coming back from Baluchistan may well have brought with them women as well as goods. The appearance of Harappa motifs of pipal leaves on Kulli pots have been mentioned already. Such borrowings between Kulli and Harappa, described above, indicate that the two cultures were flourishing side by side.

The painting of the 'landscape with animals' frieze on the Kulli vessels finds close stylistic parallels on vessels from Susa and Khuzistan and from the region of Diyala near Baghdad. On these pots are shown large animals standing about in a landscape of spiky trees and small figures such as birds between the legs or over the heads of these animals. The animals represented are cattle, black buck and goats.

Long files of goat or ibex figures in the abbreviated 'shorthand' of the Kulli pattern are found on the vessels from the Susa region. Among the finds of 'scarlet ware' at Susa is a vessel showing a war-chariot drawn by an ox whose eyes are rendered very circular in the manner of Kulli style of portrature. A common feeling in composition and spirit, and to some extent in technique, seems to have certainly existed in the pottery of Mesopotamia and that of in the Kulli Culture. The Mesopotamia group of pottery is accurately assigned to Early Dynastic times dated about 2800 B. C.

A small stone cup of above mentioned class came from Shub-ad's Grave at Ur in Mesopotamia, with elaborate carved ornament perhaps imitating some kind of woven fabric is exactly similar to a fragment from the Dash River in the Makran in Persia. Some cups carved to imitate basketry appear at Susa in Elam, at Kish in Mesopotamia and also at Mohenjo-daro. The typical 'house-urns' on the surface of which have been carved the representation of a reed hut with door and windows are common in Sistan and at Khurab in the Persian Makran and at Susa in Elam, and again in Early Dynastic contexts at Mari, Khafajah, Lagash and Adab. These little carved pots were exported from Makran to the West and the Early Dynastic Sumerians considered them worthy to be buried with a queen.

A vessel of scarlet-ware type from Sumer on which is represented a scene of bull-worship, though such a religious rite is not represented elsewhere in Mesopotamia. On a steatite cup from the Diyala region carved in the Sumerian style, is represented a great humped bull of Indian type. Again from Ur came a cylinder-seal, very characteristic of Sumer, illustrated with a bull having big circular eye in the Kulli style. Then, clay figurines of humped bulls and scarlet-ware pot resembling very close in technique to Kulli ware are found from Susa. These facts show the Sumerian trade with Makran and Baluchistan as

well as the appearance of the Indian traders in the cities of Elam and Sumer in Early Dynastic times. But it must be noted here, that these early Mesopotamian contacts were restricted to South Baluchistan and the Indus Valley had trade connexions with Mesopotamia only after five centuries. In his explorations in Persia Stein did not find any extention of Kulli Culture westwards farther than Bampur in Persia, beyond which survived for many centuries cultures typical by a long persisting painted pottery style similar to that of Tal-i-Bakun. This evidence suggests that trade between South Baluchistan and Mesopotamia was carried on by sea instead of overland. A period between 2800 and 2000 B. C. can safely be ascribed to the Kulli Culture.

In the Valley of river Zhob in North Baluchistan are a number of tells which have produced evidence of prehistoric human occupations with distinctive cultures called 'Zhob Cultures'. In a large tell at Rana Ghundai in the Zhob Valley Brigadier Ross has identified a build-up of human occupations with different cultures, the sequence of which he stratified from bottom to top. The Rana Ghundai sequence has the following nine phases called Rana Ghundai I, Rana Ghundai II, Rana Ghundai III a, Rana Ghundai III b, Rana Ghundai III c, Rana Ghundai IV, Rana Ghundai V a, Rana Ghundai V b and Rana Ghundai V c. For convenience they will be referred hereafter as R G I, R G II, etc.

R G I represents over 14 feet of soil deposits consisting of frequent layers of ash representing hearths. The pottery found was neither painted nor turned on the wheel. Flint blades similar to those from South Baluchistan were observed. An eyed needle and two bone points were found. There were also bones of domestic sheep, humped ox and the ass and four teeth of the domesticated horse. A skeleton of an infant was also seen buried. According to the excavator the finds in R G I seemed likely to suggest the intermittent but recurrent occupation of the site by semi-nomadic, horse-riding herdsmen

with impermanent huts or tents. The presumed camping sites in R G I seems similar to the first settlement at Tell Hassuna in Mesopotamia, though chronologically the latter is far anterior to the former. The period of the occupation of the R G I seems to be about in the middle of fourth millennium B.C.

In R G II also occur flint blades observed in R G I. But the pottery found were turned on the wheel and painted in black with stylized figures of humped bulls and black buck. Red was not used as a secondary colour. Similar pottery has been found at Sur Jangal in the Zhob Valley. The pots from R G II were very fine bowls with a foot-ring or a pedestal base decorated with a frieze of stylized bulls or black buck with vertical elongation of the legs and horns in contrast to the horizontal elongation of the animals on the Kulli pots. This type of pottery compares with those found in Northern Persia. The occupation of R G II by newcomers who built houses with boulder footings over the compacted debris of R G I has been suggested not to have been of very long period. The black-on-red ware in R G II compare well with those from Hissar I in Northern Persia within the Red-Ware province. R G II phase is found to be anterior to the Harappa Culture and is dated well back in the later part of the fourth millennium B. C.

In the phase of R G III a, the fine brush-work on the pottery painting of R G II is found to continue almost affectatively along with a new technique of painting in which is produced a curious red-on-red pattern by using red as a second colour on the red slip background on the pots. Another pattern of painting of multiple-lined squares in red and black found here are good parallels to those of Amri ware, implying an approximate contemporaneity and exchange of ideas.

In the succeeding R G III b occur tall carafe-like vessels which appear also at Sur Jangal. The main occupation of the Sur Jangal site seems to be similar to those of R G III as well as the overlapping III b.

In the R G III c phase the brush-work on the pottery painting coursens and the background becomes a deep red as was the case also with the preceding phase III b. The sites at Periano Ghundai and Moghul Ghundai compare with the period of III c. And R G III c is found to be approximately contemporary with the settlement site at Nal. R G III c phase seems to have met with a violent end, suggested by the evidence of burning. It is probable that the site was sacked by newcomers.

The occupation of R G III, with its three sub-divisions, seems to have been of some length. In the settlements at the sites of R G III date, the materials used for building houses seem to have been of boulder foundations with mud bricks. The sizes of bricks vary as 12 by 12 by 7½ in. at Nal, 13 by 6–8 by 2½ in. at Rana Ghundai, 14 by 9 by 2 in. at Periano Ghundai, 23 by 9 by 3¾ in. again at Nal and 24 by 16 by 4 in. at Dabar Kot. At Nal houses with rooms or courts ranging from 11 by 13 feet to 5 feet square or less were found.

At Nal, in one of the small rooms of a house, charred remains of wooden beams and rafters, with diameters of 9 and 5½ inches respectively were observed still in position forming two floors, 6 feet 3 inches apart. From the other Zhob Valley sites such as Sur Jangal, Periano Ghundai, Moghul Ghundai, Kaudani and Dabar Kot are a number of clay figurines of cattle and women, which are similar to those produced by the Kulli Culture of South Baluchistan. One clay figurine occured at Periano Ghundai, seeming to represent a horse, can be noted with interest in view of the horse's teeth found in R G I phase. The clay figurines of female are in a tiny model not more than 2 inches high and end below the waist in little pedestals. Their faces are hooded with a coif or shawl, and they are with grim slit mouth, owl-beak nose, circular eye-holes and smooth forehead. Some of them wear necklaces. These clay figurines of women are considered by historians as a grim embodiment of the mother-goddess

who is an underworld deity believed to guard the corpse and the seed-corn burried beneath the earth. A phallus carved in stone found at Moghul Ghundai and a figurine consisting of an enormously exaggerated female vulva and thighs found at Periano Ghundai suggest the representation of the fertility aspect so often allied with such underworld gods. Similar fertility symbols are found at Harappa also.

Flint blades, fragments of small cups of alabaster, beads of lapis and jade, small disc beads of bone, and a rod and a ring of copper are other materials found at Periano Ghundai. Beads of unspecified stones, beads of bone, and fragments of a copper cup occur at Dabar Kot. These comprise the other elements of the material culture of the phase called R G III. A small square stamp-seal of greenish stone is from Dabar Kot and is attributed to Harappa contacts. At Sur Jangal deposits of cremated bones associated with typical R G III potsherds were found in cemetery of about twenty small cairns identified 60-70 yards away from the settlement. The R G III phase began well back in Early Dynastic times and continued to overlap with the Harappa Culture in Akkadian period. That is, the R G III phase of the Zhob Valley Culture existed in a period between about 2800 B. C. and about 2000 B. C.

The settlements of R G IV and R G V seem to have been built upon the ruins of R G III c phase, the end of which probably may have been met with violent burning and sacking of the site. In R G IV and V phases we encounter quite different traditions in the making of pots. The heavy decoration in relief on the painted wares is in contrast to the earlier traditions. The whole change in pottery types indicates an end of the earlier culture at least at Rana Ghundai. This does not imply the extinction of human settlement in Baluchistan, but only a considerable reduction in population. The earlier craft of pot painter did not entirely cease to exist.

There are pockets of ashes overlying the foundation level of R G III c phase and R G IV phase, showing that the R G IV and V phases represent a time of raid, pillage and arson in North Baluchistan. Course bowls with painted ornament found in the R G IV phase indicate a complete break from those below, implying a new folk settling on the site. The unpainted pottery with relief patterns encrusted on to its surface found in the R G V phase also indicate another people occupying on the flame-scorched Rana Ghundai mound. One of the later settlements at this site was that of the Harappa people, from which fact the sacking of the occupation is approximately dated. According to the chronological table of Stuart Piggott the R G IV phase is dated from about 1900 to 1700 B. C. and the R G V phase from about 1600 to 1400 B. C.

Mohenjo-daro Culture

In 1922 R. D. Banerji, an officer of the Survey, recognised an ancient city at Mohenjo-daro and excavations were started in the same year. Mohenjo-daro stands on the right bank of the Indus river in Sind, about 200 miles north of Karachi. The site was within easy reach of river floods and the flooding of the site was prevented only in recent times by building a long embankment. The remains of a prehistoric embankment between the city and the nearest portion of the river, running for about a mile were found during the excavations. Consequent to the several successive floods in ancient times the site was deposited with layers of silt some 30 feet high.

The tells representing the city of Mohenjo-daro covered a square mile. The area of the ancient city was divided into six or probably seven blocks of roughly equal size and approximately rectangular by a gridiron of main streets running north-south and east-west. This tell or block is roughly a parallelogram in plan and measures about 1200 feet

north-to-south and 800 feet east-to-west and rises up to some 35 or 40 feet above the level of the surrounding plain. The blocks were divided into individual houses by an irregular network of small roads, lanes and alleys. The main streets were found to be up to 30 feet wide.

Well-fired bricks, 11 by 5·5 by 2·5 inches, or so in size were used in constructing the better-class houses. The method normally employed in bricklaying was the alternative courses of headers and stretchers. The houses had mud-plastering inside as well as usually outside. The doorways had a width of about 3 feet 4 inches, and usually had flat timber lintels. Windows were not identified even in well-preserved walls, and if at all they had existed, they were probably very high in the room and small, with gratings of which some fragments in stone were traced. The rooms of well-to-do houses generally seem to have been of varying sizes and grouped and built round a courtyard or on two or three sides only. The access to the houses was through a door which usually led from a side alley. The rooms include bathrooms with brick floors and drains running out to the street. Stairways, indicating the upper storeys or at least flat roofs, were found normally. Beam-holes found in some houses also indicate upper floors. Bamboo and rush matting coated with mud and earth were used to cover the flat roofs of houses.

In one area of the excavations were found sixteen cottages identically planned, each 20 by 12 feet internally and divided into two rooms, one of them being twice the size of the other. They had thin walls implying that they were single-storey. They were arranged in two parallel rows, with a street on one side and a narrow lane on the other. The whole lay-out of these structures is considered to suggest strongly that they were workmen's quarters.

In the citadel area of Mohenjo-daro the central feature is a great bath, or 'tank', about 40 by 24 feet and 8 feet deep.

It was built of very fine brickwork, the whole walling being backed with bitumen to make it water-tight. A cloister around it and a series of small rooms, like changing-rooms, on three sides were also found. There were steps with wooden treads on the brickwork leading down into each end and there was also provision for draining the great bath when required.

Another large structure of architectural unit about 230 by 78 feet, planned unlike any of the normal house-plans known from the rest of the town, with a cloistered court appeared in the citadel area. The building contained an arrangement of rooms that suggested to the archæologist who excavated it that it might represent a communal establishment or 'college' of some kind. To the south of this appeared another building of equally curious plan, undergone much change, but apparently originally an almost square hall some 80 feet in length, with twenty rectangular pillars of brickwork supporting its roof. So the citadel area has been described by Wheeler as 'a centre of religious or administrative life on a significant scale'.

In a brick-built rectangular bin outside the house appeared rubbish-shoots probably running out through the wall. In the city occurred an elaborate drainage system which ran under the streets and into which house drains were presumably communicated. The main drains were covered by large specially made bricks which could be lifted to clear the drains when needed. This remarkable drainage system throughout the city implies the existence of some municipal authorities and the great concern for sanitation unknown elsewhere in the prehistoric orient.

At Mohenjo-daro occur two bronze oxen which were suggested by the archæologists to form part of cart model as other parts of the bronze model of the cart were found at Harappa and Chanhu-daro. A bronze figure of a Dancing-Girl from Mohenjo-daro resembling a girl of Kulli Culture was taken to suggest, as already stated elsewhere, that

merchants from Mohenjo-daro while returning may have brought with them charming girls whose exotic dancing was much appreciated.

The remains of the bones of fish found were considered to be of 'Arius' species eaten at Mohenjo-daro. A broken scale engraved on shell and marked nine equal intervals of 1·32 inches each, suggesting a decimal scale probably measuring 13·2 inches was also found among the finds at Mohenjo-daro. Potters' kilns found at the latest phase of Mohenjo-daro was probably erected when their erection within the residential areas was allowed perhaps due to the slackening of municipal authority in the times of the decline of the city. They are similar to those found from Susa and Mesopotamian sites of Early Dynastic times and their type was more evolved than that came from Sialk III. In a restricted area at Mohenjo-daro appeared six potters' kilns, indicating the place as representing a potters' quarter. From a very early level of Mohenjo-daro came a fragment of a carved steatite pot, the type of which was found in South Baluchistan and in Sumer in Early Dynastic times. Piggott has used it as an evidence for equating this phase of Mohenjo-daro with the Early Dynastic Sumer.

From Mohenjo-daro came a silver vase to the side of which were found sticking fragments of a true cotton textile, dyed red with madder, probably showing that cotton crop was grown by the people of Mohenjo-daro. As Indian cotton was known under the name of *Sindhu* (Greek word Sindon is derived from this) it is inferred that the Mohenjo-daro people might have traded with Mesopotamia in cotton goods.

While the use of the building material of the sun-dried mud brick was common to the Ancient East, the Mohenjo-daro people used burnt brick as building material, suggesting the occurance of considerable rainfall which necessitated the discovery of rain-proof material. Heavy rain-water is also said to have caused the development of the elaborate drainage

system found in the city. The lay-out of the streets and the plans of the buildings at Mohenjo-daro seem to have persisted unchanged for a vast time of seven hundred years, showing the innate conservatism of thought of the people of Mohenjo-daro, perhaps developed by isolation. The strict observance of street frontages through many consecutive centuries of the city's rebuilding is said to suggest the heredity of land tenure and trade similar to that found in guilds or caste system.

At Mohenjo-daro was found a stone sculpture of a bearded man wearing an embroidered garment representing an art tradition than naturalism. A series of skeletons of anthropological types, of both sexes and different ages, individually or in groups of up to fourteen persons, appeared at Mohenjo-daro which were suggested as a result of a violent or accidental death in view of the laying of bodies in disorder and other circumstances. The Amri settlements were succeeded by a folk who were suggested to owe allegiance to Mohenjo-daro. About seventeen settlements subsidiary to the Kingdom of Mohenjo-daro were found by the excavators in Sind, many occupying sites already lived on by farmers of Amri and connected cultures.

Harappā Culture

In 1856 John, an English engineer who was engaged in laying out and building the southern section of East Indian Railway from Karachi to Lahore, effectually plundered the ancient city Brahminabad, about which he had heard earlier, by robbing it of bricks to form ballast for the Railway. His brother William Brunton who was in charge of the railway construction in the Punjab, from Multan to Lahore, depredated another ancient city at Harappa, part of which had already been robbed of bricks to build the present village of Harappā on the site, by collecting bricks for laying a secure foundation on which was laid a hundred miles of railway line.

The General Cunningham, before his appointment as Director-General of an Archæological Survey of Northern India, had visited Harappa in A. D. 1856, when the Brunton plunder was in progress. (Here it may be noted with interest that John Brunton once was a military captain at Karachi under General Cunningham). The General obtained various antiquities from the workers, including engraved steatite seals with the figure of a bull and symbols of an undeciphered script upon them. Though Cunningham realized the antiquity of the seals, it took archæologists seventy years more to recognise their real significance and identify and define the culture of Harappa, named from the site.

Harappā stands on the left bank of the river Ravi in the Punjab, a tributary of the Indus. The site was found liable to be flooded. The sequence at Harappa was found to have six phases of occupation. The first occupation of the site was by a folk using black-on-red type of pottery of North Baluchistan, probably of the R G III c phase. At this level was found traces of devastating floods The settlement on the site of the folk of the Harappa civilization is distinguished by the building of a great defensive wall, of which the main part was of mud brick faced with a revetment of burnt brick on the outside. The wall was found 40 feet wide at the base rising to a height of some 35 feet. A great platform made of mud and mud-brick carried the main buildings of the citadel. In plan, the whole structure was a parallelogram measuring 1200 by 600 feet with a complex gateway on the west and a re-entrant gate on the north, probably the main entrance. The wall was reinforced by rectangular salients, some of them being made higher than the main wall to become towers. The above structure showed two phases of rebuilding at later stages. Probably at the height of the Harappa civilization the burnt-brick revetment was rebuilt and thickened in some places in a fashion better than the original one. The two entrances of the gate on the west were wholly or partially

blocked and an additional salient was built on the north-west corner in the second phase of the reconstruction which was evidently the late phase of the city when 'the Harappans were on the defensive' according to Wheeler.

Shops, houses of the people and some of the streets lay below the citadel. Below the citadel on the north was found a double row of cottages arranged almost in the same way as at Mohenjo-daro, with individual houses identically on the same method of two main rooms, one larger than the other, but the individual cottages were double the size of those at Mohenjo-daro. There were fourteen such houses and they are suggested to represent undoubtedly the workmen's quarter of the city. Beyond these workmen's quarters lay orderly rows of round working floors finely built of baked brick measuring about 10 feet in diameter and originally having at the centre a massive wooden mortar sunk in the floor in which grain was pounded to flour with heavy pestles in the manner even now employed in Kashmir and Bengal. In some of the central hollows of these primitive corn-milling devices occurred remains of wheat, barley and chaff. Behind these was a great granary with buttressed walls and a central aisle on each side of which were ranged the storage blocks, each being 50 feet long and 20 feet wide, and raised on substructures built of brick above the wet ground. The granary stood on a brick-built podium measuring 200 by 150 feet. Near the granary and the working platforms were found metal workers' furnaces which suggest the semi-industrialized nature of this part of the city. The relegation of a particular group of trades or industries to a restricted area of the city and the standardized small houses in rows, the probable state Granary and the common flour-mills imply planned economy and perhaps slave labour.

Some remarkable finds at Harappa were painted pot sherds. On one is represented a fisherman carrying two nets suspended from a pole across his shoulders, with a fish and

perhaps a turtle near his feet. Some fragments of a pot show naturalistic scenes containing birds, fishes, tree, man, cock and perhaps a hooded cobra among others. Stuart Piggott has suggested Kulli as a likely source of these motifs.

In A. D. 1937 a cemetery of the Harappa folk was found at Harappa, south of the citadel and outside the city's built-up area. This cemetery named R 37, was further investigated by Wheeler in 1946 and it was then established that the cemetery was contemporary with the main period of occupation of Harappa. During the years 1937 and 1946 fifty-seven graves were excavated. Eighteen later graves had cut into earlier burials, and eight still later graves in turn had cut these, suggesting the continuous use of the cemetery over a considerable period of time. Burials were made, with the head usually to the north. The graves were enlarged to accommodate pottery vessels, normally from fifteen to twenty, occasionally up to a maximum of forty. In twelve graves were found handled copper mirrors, and one contained a little lamp and the bones of a fowl at the feet of the corpse. A copper ring on the third finger of a right hand, bangles or strings of beads, necklaces, anklets and a rod probably for applying eye-paint were also among the grave goods in some burials.

One notable burial discovered in A. D. 1946 was of a body, probably of a girl, in which the body was buried in a wooden coffin and wrapped in a shroud of reeds, the traces of which were found. Similar reed-shrouds or coffins intended to protect the dead, are known in Sumer in Akkadian and Early Dynastic periods, between about 2000 and 2800 B. C. The above sort of burial has been thought by Dr. Wheeler to suggest a connection between the two cultures.

Cultures of Chanhu-daro and other sites

Among other small towns and villages of varying size and status representing the Harappa civilization Chanhu-daro in Sind is of considerable importance. The remains of the

ancient civilization at the site cover an area about 1000 by 700 feet. Baked bricks of the standard Harappa proportions are found at this unfortified site also. House-plans, wells and drains show a general resemblance, though on a smaller scale, to the major two cities of the Harappa culture.

By excavating a bead-maker's shop at Chanhu-daro, the method of making the long carnelian or agate beads were discovered. In the beginning the rough stone was split and sawn into a bar and square in section, measuring about 3 inches in length, probably by means of a copper saw using an abraisive like emery or powdered quartz. After this the bar was flaked to a rough cylinder and then the central longitudinal perforation was bored by using tiny stone drills. The rod got was about 1¼ inches in length and 0·12 inch in diameter, with a cup-shaped hollow at one end to hold the abraisive powder by means of which the boring was made. By an experiment it was found that it would take about 24 hours to drill a 3-inch bead by the above method in which emery was used as an abraisive.

At Chanhu-daro representations of antelop and ibex on pottery of usual painted Harappa type are found. But a sherd occurred here, with its use of yellow colouring, indicates some kind of relations with the Nal series of painted pots. The flat axes appeared at Chanhu-daro tend to take on a lengthened shape narrower than the old Iranian forms and are similar to the long chisels from the Nal cemetery.

Excavations have shown that Dabar Kot, Sandhanawalla on the Ghaggar River, Rupar on the Upper Sutlej, Darawar in Bikaner and Rangpur in Kathiawar are some of the sites occupied by the people of Harappa civilization. At Dabar Kot only the upper part of 100-foot high tell was found occupied. The diameter of this mound at the base was 1200 feet. Sandhanawalla tell was 750 feet long and 500 feet wide at the base. This tell 28–foot–high was occupied within the top nine feet only.

Some Features of Harappa Culture

The ancient cultures known from Mohenjo-daro, Harappa, Chanhu-daro and some other sites are found to form parts of a wide province of culture called Harappa culture. The various sites representing the Harappa Culture are found spread over a territory stretching from the Makran coast of Persia to Kathiawar in the south and northwards to the Himalayan foothills measuring about 950 by 550 miles. At some forty settlement-sites covered by the area are found pottery vessels of identical mass-produced types, houses built of baked bricks of standard dimensions, stamp seals engraved with similar scenes and a uniform script and traces of materials suggesting a standard system of weights. Among the small towns and villages Mohenjo-daro and Harappa, 350 miles apart and linked by a continuous river thoroughfare, were twin capital cities of the Empire. The community was supposed to have been highly-organized under some system of central government which controlled production and distribution and also levied a system of tolls and customs throughout the area under its domain. Later excavations, of which we shall deal with, have shown that Harappa Culture was spread over a wider area.

The Harappa civilization was, of course, formally a *Bronze Age* in the sense that copper and bronze were the only metals used for manufacturing tools and weapons while iron was unknown. Though the Harappa copper contains a little nickel, the proportion of the arsenic contained is higher, implying that it is unlikely that the Harappa people obtained their copper from Oman on the south-west side of the Persian Gulf, from where the Sumerians got their copper with slight nickel content, but without significant arsenic. The Harappa copper probably was obtained from the ores in the Rajputana district in north-west India.

The Harappa metal-smiths made objects in crude copper,

in refined copper, in bronze (copper added with about ten per cent of tin accidenty or deliberately) and in a copper arsenic alloy. It is difficult to cast copper in a closed mould, on account of the bubbles of free oxygen which tend to make the casting spongy, but the presence or addition of tin under one per cent or arsenic acts as a de-oxidizing agent. This makes possible to make good castings even by the old *cire perdue* method. Here a model is made in wax and then coated in clay after which it is heated until the wax is melted and absorbed in the baked mould. Now the molten metal is poured in to form the exact shape of the original wax model. Subsequently, the chasing and finishing of the surface is made. The Bronze figure of Dancing-Girl from Mohenjo-daro was presumably made by this technique.

But it is found that copper casting never developed in prehistoric India to the extent what it was in early Sumer. The Harappa metal-smiths never made tools which gripped their hafts with a socket, even though the technique was known in Sumer from a much earlier date, that is the beginning of the third millennium B. C. They manufactured the simple flat axes, the type of which occurs in the fourth millennium B. C. in many parts of the Old World such as represented by Sialk III, Hissar Ic, Giyan Vc, and Susa I. So the Harappa civilization appears to be based on a culture which had inherited the early Iranian technique of making the primitive flat copper or bronze axe.

The seals from Harappa are normally square and are stamp-seals which were pressed directly on the soft material to mark the property. But Sumer had invented the cylinder-seal which was rolled on to the sealing to mark a continuous band of pattern. Such cylinder seals are rare in the Harappa civilization as they are in Egypt. This fact suggests that the use of Harappa stamp-seals cannot be attributed to Sumerian source. Knives, razors, chisels, spears without the strengthening mid-rib and fish-hooks were made by the metal-

smiths of the Harappa civilization. They also produced bowls, vases, cups and other vessels of bronze and rarely of silver.

The plain, mass-produced Harappa pottery were used for utilitarian purposes and are peculiar in its types to the Harappa Empire and lack any noticeable analogues elsewhere. A platter on a raised foot generally called 'offering-stand' is a special type of some of the Harappa ware and the type was derived from the pedestalled bowls appeared in the Zhob Valley in the Rana Ghundai II phase. The black-on-red painting on the Harappa Ware indicates its origin in the North Baluchistan pottery such as those of the Rana Ghundai III phase, while the occurance of some strong strains of Kulli style of the south such as the treatment of the bodies of the animals and birds of the Harappa ware suggests the influence of South Baluchistan.

The people of the Harappa Culture manufactured and used faience, an artificial material of considerable importance. To produce the material a compound of some base was mixed with a powdered glaze and fired to make a virtreous material with a glazed surface which also was then coloured in manufacture by adding some minerals to the composition. As the technique employed in this complex process of manufacture was unlikely to have been invented independently in many parts of Western Asia in prehistoric age, it is suggested that the use of faience in the Harappa civilization was derived from Mesopotamia or Elam where the use was found to be much earlier, that is in Jemdet Nasr times in Mesopotamia and in Susa I phase in Elam.

For the industry of Harappa civilization bitumen, alabaster and perhaps steatite came from Baluchistan. From Persia came gold, silver, lead and tin as well as the two semi-precious stones, turquoise and lapis-lazuli. The above two stones and silver were also obtained from Afghanistan. The hæmatite, the red iron oxide, was provided by the islands of the Persian Gulf. Agates, carnelians, the 'chank' shells

used for inlay and other decorations, onyx, and chalcedony for beads, and perhaps rock crystal would have come from the Kathiawar region. The copper, steatite, the lead, slate, bloodstone, Jasper and green chalcedony might have been obtained from Rajputana. Probably Deccan provided Amethysts while Nilgiri Hills or Kashmir provided amazonite, a rare stone. Deodar wood came from Kashmir and the Himalayan forests, perhaps floated down the rivers. Silajit and horns of deer both used in medicine also came from the same source. And East Turkestan or Tibet provided Jadeite.

A considerable class of traders must have been employed in all this trade. In the transport of goods camels, pack-horses and even goats would have been used. Besides, ox-cart was widely used by the people of the Harappa civilization. Amidships, characteristic of prehistoric Mesopotamia, must have been used for river traffic, as such a vessel is found engraved on a seal. The vessel amidships was a square cabin made of reeds.

The domestic animals in the Harappa Culture include the Indian humped bull, the Indian domestic buffalo, goat, sheep, pig, dog and cat. From Chanhu-daro came a brick over which, when soft and unbaked, a cat was chased by a dog leaving their foot-prints. The depth and spread of the foot-prints and the imprint of the dog slightly overlapping that of the cat suggest that the dog chased the cat with some speed. The cat from Harappa appears to belong to the same variety of the ordinary European domestic cat. The earliest animal to be domesticated in Europe was the dog which was tamed for hunting in post-glacial mesolithic period by about 8,000 B. C.

At Mohenjo-daro and Harappa occur a few camel bones of the Indian one-humped race. The elephant is represented on the seals. The horse and the domestic ass are also represented. The Sumerian name 'the ass of the mountains' for the horse suggests that it was imported from elsewhere.

It would have come to Sumer probably from 'the mountains' of Highland Persia or Turkestan.

The archæological evidence of preservation of the initial street plan from beginning to end without any encroachment on the building-lines of houses facing the main streets or subsidiary lanes at Mohenjo-daro indicates the continuity of some authority all through the long period. This continuity over generations has probably been enforced by religious ordains. Wheeler has remarked that 'the lords of Harappa administered their city in a fashion not remote from that of the priest-kings or governors of Sumer and Akkad.'

The many clay figurines of women are said to indicate some form of worship of a Mother-Goddess. A sealing on which is represented a female with a plant issued from her womb probably represents an earth-goddess. On some seals from Mohenjo-daro and Harappa is represented a male god with horns and three faces, sitting with his legs bent double heel-to-heel, and on one seal he is surrounded by an elephant, a tiger, a rhinoceros and a buffalo, accompanied by a couple of deer near the throne at his feet. The god is suggested to be the prototype of the great god Siva. The writer of this work likes to remind the reader that this god is not the immediate prototype of the Hindu god Siva.

Some form of phallic worship is indicated by some representations of the generative organs both male and female. Tree-worship is evidenced from a representation in which a deity is shown in the branches of a pipal tree. The pipal leaves provided motifs on many vessels of the Harappa folk. The humped bull is supposed to have had the privileged position of a sacred animal, as it is found extensively represented on the seals. The representation of a hero defeating tigers or other beasts on one or two seals reminds the Sumerian hero who battels with lions. This comparison suggests Sumerian influence or at least a faint strain of common tradition in religious matters of the Harappa people. No

remains of temples are found, but household shrines are suggested to have existed.

The Harappa men wore short beards and dressed their hair bound back by a fillet letting its two ends to hang down behind. They wore embroidered robe in a way to live the right shoulder bare. These are the little information we get from the sculptures. The large number of clay figurines of women indicates elaborate head-dress and an abundance of ornaments such as necklets. The jewellery worn by the Harappa people comprises plaques of gold with ornamental white paste inlay, globular beads and plain gold armlets. Conical ornaments of gold were worn over the ears by women, as was evidenced from the Kulli figurines. The jewellery worn also includes many variety of girdles or necklaces, often consisting of multiple strings of beads which were separated by 'spacers' to keep the rows parallel. Each bead was made with remarkable skill, the long tubular bead of carnelian being a favourite among them. The process of 'etching' a white pattern on red carnelian was sometimes used, the type of which is known in Sumer and Iran in the third and second millennium B. C. This also may indicate the trade relations and the times of the Harappa Culture. Apart from these, ear-rings and perhaps nose-studs were worn. The purpose of a toilet-glass was served by copper mirrors with a handle. Eyes were probably applied with kohl or some similar cosmetic employing special little rods. The Harappa folk used razors for shaving.

Toys were generally made out of baked clay. Monkeys that would slide down on a rope, cattle with movable heads that would waggle with a string and carts were favourite toys among them. A notable toy is found in the pottery whistles made in the form of a hen or other bird.

The Harappa people seem to have been fond of games as is evidenced from a couple of bricks roughly scored with lines marking out some game. One brick is found to contain part of a whole pattern which resembles an ancient Sumerian

game-board or a type known from Egypt. Another brick has a row of depression into which beans or pebbles could be flicked, again the parallel of which is found in the games of some African tribes. Dice as the games of chance seems certainly in vogue and could be related with the arrival of Indo-Europeans in India as gambling on some game of chance was known to have been very popular among them.

The Harappa Script

As already mentioned, from Mohenjo-daro and other sites of the Harappa civilization came stamp-seals on which were cut some inscriptions. And there were also some pots with signs stamped on or inscriptions scratched on after baking. Apart from these, there were small copper tablets with outline engravings of animals and inscriptions. These inscriptions have not been deciphered and so the language they represent is not at all known. Still, the Harappa script is found to have employed about 250 different symbols, and including variants about 400. This reduced number of characters, when compared with about 900 characters of the Early Dynastic Sumerian script and about 2000 syllabaries employed in the Uruk period, is suggested to indicate a late stage of the development of the Harappa script. The script is evidently pictographic and is similar in its formality to the hieroglyphic script of ancient Egypt.

Any known Harappa inscription contains only about 20 symbols or less, and still it is possible to deduce that the writing was read from right to left. But the second line of inscription, when it appears, seems to be intended to be read from left to right. It is analogous to what was known in ancient Greece as *boustrophedon* practise in which the lines are read alternately from right to left and from left to right. The symbols are evidently not alphabetic, and by analogy they may represent syllables or ideograms or determinatives to show the class of thing which the word means. The

inscriptions on the seals are supposed to represent personal names and probably titles.

Here a word must be said about the early appearance of writings or scratchings in the world. About twelve or fifteen thousand years ago a people called Azilians who occupied south of Spain made remarkable drawings on rocks. In the scratches they made a man was represented by a vertical dab with three or two horizontal dabs as a result of reduced drawing. This sort of symbolism seems to lie behind the idea of writing. When the circumstances compelled the ancient Sumerian priests to account for their stewardship of the temple estates to a jealous master and their colleagues, they agreed upon a conventional device of recording their accounts in written signs. Thus the priest administrators have invented writing before 3000 B. C. They wrote on clay tablets and as the wooden styles they used made wedge-shaped marks the script of the Sumerians is named Cuneiform meaning wedge-shaped.

The Harappa script is wholly different from the ancient scripts of Sumer, though the idea of representing a language by some conventionalized signs might have been inspired by it as was the case with ancient Egyptian system of writing. The possibility of any of the Indo-European language being spoken within the Harappa empire is definitely ruled out. The language likely to have been spoken by the Harappa people was suggested by some to belong to the Dravidian group while some others suggest it to belong to the Munda group. According to Piggott, 'all discussion must remain academic until the inscriptions are deciphered'. But here it may be remembered that the ancient people speaking Munda group of languages had not attained the status of Bronze Age culture until a century ago and that the Dravidians were late comers according to a very recent theory.

The Ethnical Types of the Harappa people

About half the skulls unearthed from Mohenjo-daro and other sites and one well-preserved skull from the Nal cemetery in Baluchistan belonged to a somewhat homogeneous group classed as the Mediterranean type. At the present day the type includes many number of folks stretching from India to Iberia. The characteristic type was found to appear in late Natufian times in Palestine in a Mesolithic phase dated about 8000 B. C. The people representing the type were supposed to have differentiated in the southern steppes of North Africa and then expanded westwards and eastwards from Western Asia or so. To this type belonged the pre-dynastic Egyptians and the pure representations of the stock to-day appear in Arabia. This long headed meditarranean folk are medium to tall in stature with a narrow and pronounced nose. They have a complexion varying from dark to light olive-brown. They are with black hair and typically large and open eyes ranging from black to brown in colour. They have a slenderly built body. At the present day the type is said to constitute a main element in the people of North India and to be wide-spread among the upper social classes in other parts of India. The archæological evidence indicate that this Mediterranean type was everywhere in Western Asia in the early agricultural civilizations and its appearance in the Harappan settlements must be attributed to the spread of the mediterranean folk from the West.

Three skulls belonging to the Mohenjo-daro people are found to represent more primitive group classed as the Proto-Australoid. They are of small stature, with a dark skin complex nearing black, long heads, broad flat nose, fleshy protruding lips and curly black hair. With some reason this group can be taken to belong to the aboriginal tribes. These people belonging to the Proto-Australoid group constitute the dominent element in the Central and South Indian

aboriginal tribes of today. According to Piggott 'exterior castes' of Hindu community, may also belong to this stock of people.

One skull from the Harappa Culture (perhaps even four) certainly was short headed and were similar to the so-called Alpine type. Some anthropologists regard the persons represented by it as the result of a mixture between Proto-Australoid and the Mediterranean types. This cranial type is represented at Sialk also in the context of fourth millennium B.C. One skull–from a burial which may be later than the main occupation of Mohenjo-daro—was of a person of Mongolian type. It is said to represent an occasional foreigner either from Nepal, Assam or China who came perhaps as an invader.

Mackay explains that the majority of skulls excavated at Mohenjo-daro and Harappa are comparable with those unearthed from Kish and Al'Ubaid in Mesopotamia. There is a theory according to which the "Proto-Elamites," the Sumerians and the Akkadians formed the ancient inhabitants of Mesopotamia. The possibility of the Harappa people being Sumerians may be ruled out as the Harappa scripts are apparently not related to the corresponding Sumerian ones. The Sumerian temple was not traced in the Harappa sites. The possibility of being Dravidians may also be ruled out as it has been lately proved that the Dravidians are late comers to India. Mackay suggests that the people of Mohenjo-daro belong to Proto-Elamites. But H. G. Wells writes that the Elamites are a more Negroid people. In the light of the picture given by archæologists the Mohenjo-daro skulls are more Semitic than Negroid. Sialk IV, a colony of literate Elamites, shows the Elamites had achieved civilization and become literate about 3000 B. C. Their characters are quite distinct from those of Harappa. The decimal scale of Harappa shows closeness to Egypt where a numeral notation was devised on a decimal basis. "Proto-Elamites" are also known to have had a decimal system. In Sumer Harappa contact

was noticed only after the Akkadian times. The sure existence of the Harappa culture was only round about 2300 B. C. and the date significantly coincides with the rise of the Akkadians. As things stand to-day the writer is inclined to suggest tenatatively that there is a likelihood of the people of Mohenjo-daro being the Semitic Akkadian colonists. However, it seems to be almost certain that the dominant Harappa people must either be the "Proto-Elamites" or Akkadian colonists.

The Expansion of the Harappa Culture

In the year 1953 the Department of Archæology, Government of India, started excavations at the 70-foot-high mound at Rupar, situated near the southern bank of the Sutlej, in Ambala district. Immediately above the natural soil was found a deposit containing faience ornaments, terra cotta cakes and earthenware types, all characteristic of Harappa and Mohenjo-daro. These finds at Rupar indicate the extension of the Harappa Culture into East Punjab.

Rangpur seems to have been first inhabited by the people of microlithic age, according to the result of the excavations at Rangpur conducted in 1953 and 1954. After the end of this occupation the site was deserted for an interval. The site was then inhabited by a people of The Harappa Culture. The potteries occurred in the upper layers are different from the potteries of the Harappa Culture occurred in the lower layers of the site. The significant overlapping in the layers of potteries suggests that the Harappa Culture underwent a gradual decline and was superseded and succeeded by a different type of culture.

Further explorations conducted in about 1955 in the Western district of Halar in Saurashtra have brought to light some other sites containing the typical relics of the Harappa Culture showing clearly that the Zone of the ancient Harappa Culture had extended to almost the whole peninsula of Saurashtra.

Again in the year 1955 the Department of Archæology, Government of India, conducted an excavation at the mound of Lothal in the village known as Saragwala in the Dholka Taluq in Ahmedabad District. In the early levels of the site occurred pottery with paintings executed in black or chocolate over a red or buff surface, dishes-on-stand, perforated jars etc., along with the other familiar products of the Harappa Culture such as copper or bronze axes, faience and steatite beads and triangular pottery 'cakes'. A seal with the peculiarly Harappan symbol of a unicorn in front of a 'manger' and one line of the Harappa script at the top has also been unearthed. The site also yielded other objects like chart blades and beads of carnelian and other material which virtually complete the Harappan assemblage. As a result of this discovery we know that the Harappa Culture with its focus in Sind and West Punjab, had its ramifications in Baluchistan in the West and East Punjab in the east and in Ahmedabad in the south.

Few more Aspects of the Harappa Culture

Now we shall deal with the family life of the Harappa people. We have no direct evidence from Harappan sites about the nature of their family system. But we can suppose almost correctly what sort of family life they led by applying our knowledge from elsewhere.

After describing the higher barbarism of the Copper Age Gordon Childe states that 'by relieving women of a lot of heavy but essential tasks in the way of hoeing, carrying burdens, and making pots, they cut away the economic foundations of mother-right.' Thus the new development among the barbarians, caused by the inventions of potters' wheel, spinning wheel, wheeled vehicles, plough and loom or by some of them, paved the way for forming the patriarchal 'family' in which, according to sociologists, the household comprised sons, their wives and children and perhaps slaves

under a patriarch, the family head. The system seems to have been in existence first in Mesopotamia at least before 2500 B. C. We have seen that the people of Harappa Culture had adopted some of the innovations above discussed and the Harappa folk branched off from one of the peoples of Mesopotamia in about 2500 B. C. Hence the Harappa people were likely to have followed the patriarchal system of family.

The syndyasmian or pairing family was founded upon marriage between single pairs, though without an exclusive cohabitation. When the Europeans reached America and discovered the American aborigines that portion of them who were in the Lower Status of barbarism, were found to have attained to the syndyasmian or pairing family. Several families were generally found in one house, forming a communal household, suggesting that the family was too feeble an organization to face alone the hardships of life. Entire strangers were often brought into the marriage relation. Parents settled all marriages and none was conducted without their consent. Their marriage relation continued only during the pleasure of the parties. It is on account of this reason that it is aptly distinguished as the pairing family. However, a public sentiment was gradually formed and grown into strength against such separations. The people who had the punaluan family system gradually discovered the advantages of marriages between unrelated persons through the practice of marrying out of the gens and having a principal wife paving the way to the constitution of the syndyasmian family. This system described by Morgan as given above briefly was probably precursive to the patriarchal system. The syndyasmian system persisted through many centuries of years among the several undeveloped communities.

Another important thing to be discussed is the origin of private property and state in relation to the Harappa culture.

The early hunting men in Asia who followed the herds of wild cattle or wild horses are said to have come to an idea of property in these animals as a result of which the domestication of animals took place. In some other parts of the world the advent of private property is suggested to have happened from the articles of luxury.

In the primitive society, according to Huntington Cairns, property is "basically conceived of as a part of the personality or self; it is a relation between the person and the thing. Something that the individual has touched or handled becomes imbued with a portion of his personality". Leonhard Adam explains that the relation between the object and its maker involved "the right to prevent others from putting their hands to the object, because it is part of its owner's personal sphere, or an emanation of his personality."

The people of a Halafian (after Tell Halaf on the Khabur) village near Lake Van in Western Asia made amulets of metal carved into the likeness of 'potent' objects and engraved with magical patterns which were used as seals to stamp on a blob of clay affixed to a jar-stopper or bundle in order to put a 'tabu' on the object so as to effect the transfer of its magic to the clay and mark the object as one's property. In the village of Sialk III phase appeared wheel-turned vessels marked by using seals.

When men were in the status of savagery or in the Lower Status of barbarism the amount of property they had was small and comprised articles of personal effects. When one died his most valuable personal objects were buried with his body. But when property in variety and amount increased the question of inheritance arose. In the Status of savagery as well as in the Lower Status of barbarism the property was distributed among the gentiles of the dead owner. Then, according to Morgan, the property was distributed among the agnatic kindred of the dead owner and this rule of inheritance was found among the barbarians of the

Middle Status. In the Upper Status of barbarism it was settled that the property should be inherited by the children of the deceased.

In Sumer, in the early half of the third millennium B. C., the town land was divided up and owned individually while pasture remained common. The agricultural land created by social labour was owned by the gods on behalf of the tribe and clans. Some priests treated the god's land, equipment and cattle as their private properties and the servants of this communal farm as their personal slaves.

To safeguard the private property against the communistic traditions of the earlier gentile order a new institution was needed. The first attempt to constitute such an institution called state involved the breaking up the gentes by splitting their members into privileged and inferior classes.

The State had emerged in Sumer by the beginning of historical times as a result of the attempt, according to Childe, 'to restrain the conflicts between the cities and to repel onslaughts by starveling barbarians from the desert fringe who cast envious eyes on urban wealth and on the cities' lands, created by centuries of toil.' The State was embodied in a person of the city-governor or king who may probably be a 'corn-king' and war-chief. Still, the early records show that peace treaty was drawn up in the names of the belligerent gods, as according to the ancient Sumerians it was the gods of the cities who wage war and win victories.

Now we shall come to the cities and villages of the Harappa Culture. We have already seen that private property in the Harappan city included landed property also. We have also seen that there was a sort of government in the cities and probably the Harappan cities and villages formed part of a vast empire. In view of the facts described elsewhere the Harappan tradition of private property and state was inherited from Western Asia. It is probable, I think, that Harappan Kingdom formed part of the great Akkadian empire

till the former was separated from the home kingdom with the rise of the Elamites. The separation cut off the supply from the West to the Harappan kingdom leading to a gradual decay of the kingdom.

It may be mentioned here that though the achievements of the Bronze Age of Fourth Millennium such as the discoveries of potters' wheel, wheeled vehicles, the metallurgy of copper, the brick and the seal and the harnessing of animal motive power made by the peoples of Western Asia were diffused soon after 3000 B. C, to the countries stretching from Aegean to North-west India, it took the achievements nearly thousand years more to reach Britain and China. The sail is found represented on Egyptian vases that are earlier than 3000 B. C. and so probably the Harappa people also may have used sailing boats.

Chapter III

LATE BRONZE AGE

Archæological traces of Arrival of Indo-Europeans

We have seen that a new people with a barbarian civilization had entered into India somewhen about 1500 B. C. We shall know some more about the intrusive barbarians.

In the stratification of the Rana Ghunda mound in North Baluchistan, the archæologists have found a continuous occupation of the site with an evolving pottery style from a period probably in the fourth millennium B. C. up to the R G III c phase, dated about 2000 B. C. Overlying the foundation level of the R G III c phase, as we have already seen, 'there are pockets of ashes, as though some great conflagration had taken place' as Brigadier Ross puts it. In the R G IV phase occur coarse bowls with painted ornament showing a complete break from the types of pottery below. This settlement too was destroyed by fire. A change in pottery was again observed in the R G V phase, implying new folk settling on the flame-scorched Rana Ghundai mound. So the R G IV and R G V phases can be taken to represent a time of raiding, arson and pillage in North Baluchistan.

Similarly the last phase of the Zhob-Ware settlement on the Nal site was also burnt down. At Dabar Kot too the upper six feet of the mound contained four thick ash layers, suggesting a succestive conflagrations of the later occupations. As one of the later occupations of the site was that of the Harappa people, the time of the burning and the sacking of the settlement was approximately fixed.

At Shahi-tump, in South Baluchistan, Sir Aurel Stein has excavated a cemetery made in the ruins of a village of the Kulli Culture, which is equated with the appearance of Harappa people in the region by means of a find of a fragment of a typical Harappa clay toy cart. The grave-goods usually comprised pots, alabaster cups, copper or bronze tools, stone beads and ornaments. Though the Shahi-tump ware is archaistic, we can assign a late date to it as evidenced by its associated finds. It represents the last phase of a tradition which existed in Southern Persia from probably the fifth millennium till the beginning of the second millennium B. C.

The shaft-hole battle-axe and copper spear from burial B in the Shahi-tump cemetery show that it is the grave of a warrior. The spear-head, nine inches long without the mid-rib is similar to Harappa types. The stout axe with a shaft-hole 1·2 inches in diameter has its nearest parallels, with much significance, in the weapons which came from the graves of barbarian chieftains at Maikop and Tsarskaya in South Russia and were derived from Akkadian and Sumerian proto-types.

The five copper stamp-seals found at Shahi-tump are all circular, with projecting strips of metal on their faces, and their similar parallels had appeared in Hissar II b, Hissar III b, Anau III and at Susa all dated approximately 2000 B. C. This evidence suggests that the metal objects found in the Shahi-tump cemetery were associated with the movements of a folk from the West somewhen around 2000 B. C. These objects could represent either trade or migration, but the latter is preferred in view of the evidences such as the burning of the sites and foreign physical features of the dead buried in the cemetery. As the wares represent a local tradition, it is probable that the people who migrated travelled light, taking with them only portable objects such as battle-axes, spears and seals. The anatomical report on the skull found in the Shahi-tump cemetery was that it indicated the 'traces of mixed origin and in certain respects tends to approximate

to the Caspian or Nordic type of skull.' Therefore it is likely that the dead buried in the Shahi-tump cemetery was related to the newcomers from the West to the region bringing with them weapons of war and some novel types of seals obtained by trade.

At Jhukar, Lohumjo-daro and Chanhu-daro in Sind was found an intrusive culture in the ruins of deserted Harappa settlements which is known as the Jhukar Culture. A good deal of evidence was found at Chanhu-daro where the stratification has the following phases called Chanhu-daro I a, Chanhu-daro I b, Chanhu-daro I c, Chanhu-daro II and Chanhu-daro III. The first three phases are of the Harappa Culture and the fourth, Chanhu-daro II, is of the Jhukar Culture and the fifth, Chanhu-daro III, is of the Jhangar Culture.

In the Chanhu-daro II phase are found some huts, the walls of which were made with materials such as matting, and some other houses with walls made of brickbats plundered from other parts of the ancient village. The rectangular brick floor of a hut is found to measure some 17 by 8 feet. The nature of the settlement seems to be that of 'squatters' among the ruins of the Harappa I c phase.

The pottery from the Chanhu-daro II phase is a buff ware, with an ornament employing geometric and stylized plant forms, painted in black and red. They consist of small-footed jars, bottles, offering stands and saucers. These wares are found to be similar to those from Harappa or Harappa-influenced phase of the Kulli Culture. But the broad horizontal bands painted in plum red accompanying simple geometric designs remind the Amri style. So the Jhukar pottery found from the sites in Sind represents a style in which the elements of Kulli, Harappa and Amri styles are included. Piggott writes that the Jhukar pottery was, on the whole, an indigenous product which arose when refugee tribes from Baluchistan settled in Sind after the fall of the Harappa Kingdom.

In Chanhu-daro II occur stamp seals, usually circular and exceptionally square, made of pottery, stone, faience and metal, which are quite different in their motifs of ornament from the Harappa seals. They are not inscribed with any script. They have their parallels in the copper seals from the Shahi-tump cemetery and in the seals from Elam and Sumer. So the Jhukar seals suggest that the settlement of the folk in the Chanhu-daro II phase was that of newcomers who are perhaps connected with the dead buried in the Shahi-tump cemetery.

The barrel-shaped long faience beads found at Chanhu-daro II are paralleled at Jemdet Nasr in the Early Dynastic associations. An ornamented stone bead found at Lohumjo-daro in Sind recalls similar beads from Hissar III c and Anau III. These evidences also show that the new types of objects were introduced from the West. One copper shaft-hole axe and a series of pins, presumably used in dressing, found in the Jhukar Culture are also not observed in the Harappa Culture, implying that they too were brought by a folk from the West.

At Mohenjo-daro in a late stratum occurred a copper axe-adze with a shaft-tube for hafting, which offers a contrast to the Harappa tools. Such a weapon of war is found in Hissar III, Shah Tepe and Turang Tepe in North Persia probably being contemporary with the Akkadian times. A group of swords or daggers, up to 1½ feet long and made with the strengthening mid-rib appears at Mohenjo-daro, also in the later strata, the nearest parallels of which are found in Palestine dating between 1800 and 1500 B. C. These weapons also seem likely to be introduced from the West.

By later excavations cemetery H was found at Harappa and the cemetery has been found to be later than cemetery R 37 of the Harappa period. The former burials in the cemetery H (in Stratum II) were extended inhumations, usually the dead laid north-east and south-west with legs

little flexed, and at about six feet below the present surface. Among such twenty-four burials excavated at the site, one grave contained a wholly dismembered goat laid with the dead man. In another grave was a dead body of a woman with a gold bangle on her wrist while in another were three teeth in the skull looped round with gold wire. A good deal of pottery vessels were also found in the above graves.

About 140 burials were found in a later stratum (Stratum I) in cemetery H at a depth of about two or three feet beneath the present surface. The bones in many cases indicated that the dead bodies were exposed for some time previous to burial, after which the skull and some long bones were collected, put in a pot and deposited in the cemetery. These fractional burials in large pots did not accompany any grave-goods or offerings. A dozen of the above burials consist of babies wholly crouched up in the funeral jars, the mouth of the jars being closed at by lids of broken pots. The burial custom seems to be foreign to the Harappa Culture.

In the paintings of ornaments on the pottery from both strata of the cemetery the treatment of men and animals is totally different from that found in any of the prehistoric wares appeared in Baluchistan or in India while it resembles to some extent to that on the Samara ware and its parallels in Iran. These similarities may suggest that the cemetery H people are newcomers to the Harappa world about whose further whereabouts one can say nothing definitely. The dominant skull-form found in the earlier phase of the cemetery seemed to tha archæologists to have been the proto-Australoid type. In the burials a small, low-headed race, such as is found among the present day aboriginals of India, was traced. Nevertheless, the scanty information of the human types represented in the cemetery helps little in determining the ethnic type connected with the migration from the West.

At Kurram, in the old North-West Frontier Province of West Pakistan, occurred a stray flat copper axe with lateral

lugs which was found widely distributed in space and time in Europe while in Western Asia only one specimen was found at Turang Tepe in Northern Persia. The Turang Tepe axe seems to be contemporary with Hissar III and Anau III, perhaps early in the second millennium B. C. So the Kurram find can be taken again to suggest arrivals from the West at a later time.

At Rajanpur in the Punjab occurs a remarkable bronze sword with an elaborate hilt. Swords with hilts of the Rajanpur type appear in the graves of Luristan in Persia which are dated about 1400–1200 B. C., and in the Late Bronze Age graves of Talish in the Caucasus of approximately 1350-1200 B. C. The relation of the weapons to the Caucaso-Persian styles suggests western contacts of the late second millennium B. C.

There are archæological finds to show the extention of the Harappa Culture eastwards to the Ganges Basin, probably due to the colonization of the valleys of the Jumna and the Ganges by displaced persons from Sind and the Punjab who were probably pressed back by the new intrusive invaders from the West. In the Valleys of the Ganges and the Jumna rivers above their point of junction and round the Ranchi uplands are found tools of flat copper or bronze axe of simple forms. They are found in hoards of up to 400 objects or singly and they almost compare with the flat axes from the sites of the Harappa Culture. With them are associated a series of copper harpoons which must represent a local development, which in turn might have been achieved by transforming primitive equipment in bone or horn into metal. The deposition of hoards may imply a time of trouble and insecurity, perhaps consequent to the invasions from the West.

The archæological finds described above afford conclusive evidence of the arrival of newcomers in the Harappa Kingdom from the West through Russian Turkestan, Northern Iran and

Baluchistan sacking ancient cities on their way at a period before about 1500 B. C. They are the intrusive barbarians responsible for the rude and ruthless interruption of the Harappa civilization and final occupation of the ruined Harappa sites.

Identification of Indo-European Type by Philology

A French missionary named Coeurdoux in A. D. 1767 published a philological conclusion he arrived at by a study of Sanskrit in which he found Sanskrit to have striking similarities with the Greek and the Latin languages in vocabulary and grammar. He thought that such remarkable affinities could be accounted for only by postulating that the above tongues had a common origin in an extinct language and that there were a dispersal of folks speaking this group of languages to East and West. Sir William Jones, an English administrator, in 1786 published the same conclusion, he had, evidently arrived at independently. The word 'Indo-European' came to be used as a convenient term for the group of above tongues and their supposed original since 1813.

Franz Bopp, a grammarian, again in 1833–35 pointed out that the original folks who spoke Latin, Greek, Old Slavonic, Lithuanian, Gothic, Old German, Celtic, Russian, Albanian, Armenian, Zend and Sanskrit belonged to a common stock of people. It is proved by the fact that such words for Indo-European names of parents as *pitri*, *mātri* in Sanskrit, *patēr*, *mētēr* in Greek, *father*, *mother* in English, *pēre*, *mēre* in French and *hair*, *mair* in Armenian are varients of an original pair of words. To this verbal equations can also be added Latin *pater*, Germanic *fadar* and Tocharian *pātar*.

The word used for *one hundred* in one group of the Indo-European languages is *satem*, while in the other is *centum*. The *satem* group of languages consists of Sanskrit, Iranian, Armenian, Baltic and Slavic dialects as well as some North Indian tongues and has an eastern distribution. The *centum*

group of tongues consists of Latin, Greek, Germanic, Italic and Celtic languages and has a distribution in the West. Tocharian (also spelt as Tokharian), an extinct language, known from manuscripts of the early centuries of the Christian era brought to light by Sir Aurel Stein from Sinkiang, belongs to the centum group and its appearance in the Orient, I think, may be due to the colonization by the Alexandrian soldiers as in Bactria. In view of this philological evidence, it is concluded that the intrusive people who came to India in about 1500 B. C. were Indo-Europeans. This is confirmed by the presence of the Nordic or Indo-European element among the present day Indian population on a large scale.

Culture and Eastward Expansion of Indo-Europeans

An objective postulation regarding the possible region of origin of the Indo-European folk, and one which worked in with philology and archæology, is that the Indo-European dialects evolved among the very early farmers of the steppes in South Russia and the lands between the Caspian Sea and South Russia. This theory was originated by J. L. Myres and Harold Peake and put on a sound basis by Childe. In this abode of early Indo-Europeans the dominant culture around 2000 B. C. was agricultural, though partly nomadic. They tamed cattle and sheep and lately domesticated the horse. They buried their dead in separate graves, occasionally under a barrow or mound and sometimes accompanying a stone battle-axe.

In South Russia were found great tombs like that of Maikop, probably of some chieftains, containing tools, wrought gold or silver and weapons found to have been derived from the Akkadian or Early Dynastic Sumerian types of metal-work. Similar type of metal-work was found at the sites of Tepe Hissar and Turang Tepe in the land lying south-east of the Caspian Sea and in the great tombs of Alaca Huyuk in Anatolia. The Sanskrit *parasu*, Greek *pelekus* and Assyrian

pilakku representing the words for an axe appear from their similarity to have been derived from an original Mesopotamian word, presumably *peleku*. Significantly, again, the word for copper in Latin is *roudhos* while it is *urud* in Sumerian.

Therefore, it is probable that the early Indo-Europeans who inhabited the territory extending from Turkestan to South Russia derived their metal working techniques from the higher civilization of Mesopotamia by about 2000 B. C. In the early part of second millennium B. C. is found a branch of the Indo-Europeans called Hittite having established an empire, with Boghaz Keui in Asia Minor as its capital, from the extant inscriptions in the Nashili dialect of Hittite. To the east of this, Kassites, whose kings are known by Indo-European names, established another kingdom about 1500 B.C. The region round the Khabur River head-waters, lying north-west to the Kassite kingdom, was occupied, and swayed over a good part of Northern Syria by Mitanni, again an Indo-European group.

The family system of this earliest Indo-Europeans seems to be patriarchal as the words for mother, father, sister and brother are common to the majority of Indo-European tongues. They used objects of copper and bronze while iron was unknown to them.

Indo-Europeans in Bronze Age India

Prākrit, Pāli, Māgadhi etc. are known to be the spoken languages in North India in the middle of the first millennium B. C. These languages belong to the Indo-European family and are known by the generic name Prākrit. This presupposes an original Prakrit which must be the dialect of the early Indo-Europeans who settled in North India. For the convenience of narration we shall hereafter call these people Prakrit people, deriving their name from their languages. They cannot be called the Indo-Aryans, as the Indo-Aryans represent, according to the writer, another wave of Indo-

European invasion of India at a later time which will be described elsewhere in the appropriate context. The Prakrit languages are till now generally taken to be derivatives of Sanskrit. To the author Sanskrit seems to be a hybrid language developed after the advent of the Achæmenid rulers which also will be dealt with in due course.

The bronze sword from Rajanpur in the Punjab which is likely to be about 1200 B. C. or still later and other similar finds of bronze swords from elsewhere in India indicate a Bronze Age civilization in India persisting at least until the beginning of the first millennium B. C.

The Department of Archæology, Government of India, recently excavated a site in the Mawana *tehsil* of the district of Meerut in the Uttar Pradesh State under the direction of B. B. Lal, who was the Superintendent of Excavation Branch. The excavator believed the site to represent the ancient Hastinapur described in the epic of Mahabharata. Five periods of settlements (marked from I to V) interrupted by four periods of desertion were discovered by this excavation. Period III is assigned to 600 B. C. to 300 B. C., IV to 200 B.C. to 100 B. C. and V to A. D. 1000 to 1500 and their respective dates have been confirmed by the numismatic material obtained from the dig.

The seven-foot thick deposit of the site period II is alterated from period I by one-foot-thick layer of sterile debris. The excavator says that 'in the general context of the site about three centuries would seem to be a fairly reasonable estimate for the accumulation of these strata' and consequently he assigns a period from 1100 B. C. to 800 B. C. to the Period II. In the deposit of period II were found terra cotta figurines, bone rods, glass bangles; nail-parers, arrow-heads and sickles of copper along with vessels of Painted Gray Ware. The remains of mud-houses of which some were coated with mud-plaster also occurred. This period ended consequent to a devastating flood which destroyed a good

portion of the ancient village or town. Since the stratum of Period II has yielded nothing of iron the culture of the period II is certainly of Bronze Age. According to the internal stratigraphy it can safely be suggested that the people of Period II who lived in thatched huts of mud-brick and used gray ware bowls and dishes were the early Indo-Europeans. The collateral evidence of painted gray ware occurred at Thessaly in Greece, Lake Urmia in Iran and Sistan pointed out by the excavator supports the above suggestion. Period I is dated 1300 B. C.

Now we shall see when the Bronze Age ended in India. "How and when iron-working spread to India and China is still uncertain," writes Gordon Childe. Nevertheless, we shall endeavour to investigate into the matter.

Even though as far as in the third millennium B. C. a few tools of wrought iron were occasionally used in Mesopotamia and Egypt, a suitable process for producing good iron in large quantities was apparently first invented somewhen about 1500 B. C. by a barbarian folk living among the mountains of Armenia. The Indo-European rulers of Mitanni employed the iron workers in their army and the practice was followed by the Hittites also who succeeded the former. Both these rulers guarded the secret of producing iron. However, the secret was divulged probably by the barbarian mercenaries serving in the Hittite military and consequently the Bronze Age in Western Asia ended at about 1200 B. C. The Iron Age began in Greece in about 1000 B. C. and probably at the same time it began in Persia too. The use of iron must have spread in India at least by sixth century B. C. when contacts with Iran was formed. Persians could not have conquered Assyria without the iron weapons and when they conquered North-West India the knowledge and the use of the metal must have spread at least in North India.

So, the Bronze Age civilization ended in North India, at the latest, round about 500 B. C. As the dawn of Historic

India begins from about the same date, there was, perhaps, no prehistoric Iron Age in India. Therefore, the Late Bronze Age lasted for about a millennium years in which the dominant folk was the Prakrit people. They had no writings. Little is known about their religious beliefs. They seem to have inherited the phallus worship of the Harappa people as well as the *pipal* tree worship, for otherwise the existence of these worships in India in the middle of the first millennium B. C. cannot be accounted for as they are not traced to an Indo-European source. And they did not build temples. They tamed the elephants and probably employed them in war. With their bronze weapons they could reclaim lands very slowly only and hence their settlements did not require considerable expansion beyond North India for more than ten centuries.

Chapter IV

DAWN OF IRON AGE

The Advent of Aryans

In the year 610 B. C. a part of the Assyrian Empire was taken over by a renascent Babylonia while the other part was taken over by the Aryan Medes of Iran. Soon after 540 B. C. both these Kingdoms were conquered by the Aryan Persians who established the Achæmenid dynasty.

Darius I, an Achæmenid emperor of Iran and grandson of Cyrus, conquered the North-West India and carried Iranian domination into India in about 516 B. C. India is included among his *satraphies* or provinces in a stone inscription of Persepolis dated 518–515 B.C. while the Bahistan inscription of 520–518 excluded India from his satrapies. In 517 Skylax, a Greek admiral of Darius is said to have made a voyage of exploration down the Indus to the sea and got to Egypt along the coasts of Gedrosia and Arabia taking a long period of thirty months.

By 500 B. C. the empire of Darius I extended from Dardanells to the Indus and from Upper Egypt to Central Asia. According to the Greek historian Herodotus, India then was a rich country with comparatively larger population and it formed the twentieth satrapy of Darius. He says that the army of Darius which attacked Greece consisted also of Indian cavalry and infantry. The infantry were dressed in garments of cotton and were armed with bows of cane and arrows also of cane tipped with iron. Troops from India also took part in the battle of Árbela in 330 B. C. in which the

Achæmenid King Darius III was defeated by the great Mecedonian King Alexander. The political unity brought about by the Achæmenid rulers, though achieved at a heavy loss in human lives and wealth, actuated the pooling of knowledge.

It seems probable that after the end of the Achæmenid Empire, rulers under it in India attained sovereignty. It is also likely that these Iranian rulers and their descendants with their iron weapons could easily sweep over North India and establish many Kingdoms within a few centuries. They seem to have established at first in the Punjab and then spread to east and south. It is suggested that the Sunga rulers of the second century B. C. were of Iranian origin as is indicated from their suffix 'mitra' to their names.

We shall now consider what the impressions of Persian rule over North India which lasted about two centuries are. The use of stone as building material was attributed to them. We know that the brick was used as a building material by the people of the Harappa civilization while the early Indian Indo-Europeans used wood instead. By the excavation of the audience-hall of the Mauryan emperor it is found that it was built on an Iranian model. The monolithic pillars of polished sandstone with sculptured capitals of Asoka are also found to be of a Persian design. Here it may also be noted that the Persian architecture in its turn owes much to the earlier schools such as Assyrio-Babylonian and Egyptian. The representation of animals is typical of the Assyrio-Babylonian architecture whereas the columns are characteristic of Egyptian.

As the Persians had iron by this time, we can presume that they introduced the use of iron into India. Its use enabled individuals of the rural population to have an independent share in the benefits of new economy. The new metal tools were employed for clearing the ground of trees, for breaking the ground and digging channels by which

farmers could produce more and easily. With the help of the metal, industry and transport were also much improved. With the enlarged food supply, resulted from the use of iron implements, the population could grow fast. Cheap iron enabled any peasant to possess an iron implement to clear fresh ground for himself. An ordinary artisan could afford a kit of metal tools without depending on the nobles and kings as was the case in Bronze Age. With the iron weapons even the backward barbarians could defeat the army of the civilized states of Western Asia.

The Persians also introduced, for the first time, into India coined money and stimulated trade. Few *Darics* of gold and silver *sigloi* or *shekels* in larger numbers were discovered on the Indian soil. The sigloi valued one-twentieth of the *Daric* contain counter marks made by Indian money-changers.

A peep into the history of the coined money will help in comparative study. Before 800 B. C. the use of silver bars in trade had replaced the old barter system. Just after 800 B. C. the Kings of Assyria and Syria used to stamp bars of silver to guarantee the quality of the metal. It culminated eventually into the issuing of pieces of metal of a uniform shape and weight and stamped by the State, the initial practice of which the Greek tradition attributes to Croesus of Lydia at 700 B. C. But it was in Greece, soon after 600 B.C. copper or small silver coins convenient for petty dealers were first issued which really revolutionised the trade.

It was also the Persians who acquainted India with an alphabetic form of writing. Inscriptions in their script called Kharoshthi were found in North-West India.

By 2500 B. C. the Sumerian characters were employed phonetically to write down the names of Semitic Kings. Eventually the characters came to be used by Semites for their business and official records in their Akkadian language. Words in Semitic languages are composed by roots which can be pronounced by three consonants. Vowels are used to

denote tenses and cases. Therefore it was easily possible to read a sentence in Semitic language transcribed in characters representing consonants alone. This philological convenience enabled the Semites to invent phonetic writing. As mentioned above the Sumerian characters were first used phonetically to write down the names of Semitic kings. This phonetic method was further developed by the Phoenician merchants and priests of Ugarit who spoke a Semitic language. Around 1500 B. C. they chose 29 characters from the Sumerian cuneiform characters and gave to each of them a single phonetic value. Thus Phoenicians invented an alphabet easy to learn and write which revolutionised the human history.

In a southern Phoenician city the Egyptian hieroglyphs seem to have been widely known. So the people of this southern city applied the phonetic method of the Ugarit people to the Egyptian script to which they were accustomed and selected from them 22 characters to denote simple consonants. The alphabet had no vowels. The above alphabetic writing was well established in Phoenicia by about 1100 B. C. and from this were derived the Greek, Roman, Aramaic and South Arabian scripts and their modern derivatives.

The Kharoshthi script is only a vocalized adaptation of Aramaic and written from right to left. The Persians probably had developed the kharoshthi script by about 600 B. C. before which they used cuneiform characters as the basis of a syllabary for writing their tongue.

The clerks of the Kshatrapas under Darius, who were employed to keep the revenue accounts, might have popularised writing at least in North-West India. The alphabet made literacy available even to an ordinary person. It soon expediated literacy activities and before long succeeded in producing large literacy works. With the introduction of these *popular* inventions (as Childe puts it) namely iron, alphabet and coined money there was set up a stage for a great social and political progress in India.

The high-way road system is likely to be another great contribution to India by the Persians. The couriers of Darius rode with his orders from the Indus to the Dardenells. Though the Assyrian and Persian rulers constructed the roads primarily for their military and administrative purposes, it certainly served the people in simplifying travelling. It not only prospered trade but even served as a means of pooling human knowledge from the different parts of the world.

It is also to the credit of the Persians that India, in the middle of the first millennium B. C., had good administrative institutions. The set-up of the imperial palace and court and the organisation of administration found in India after the middle of the first millennium B. C. were inherited by India from the Persians. The system of dividing the empire into provinces was originated by Persia. The Asoka inscriptions on rocks are said to be after Persian model. Even the preamble of the edicts of Asoka—'King Devanampriya Priyadarsin speaks thus' is attributed to the practice of the Achæmenid rulers.

The impress of the Iranian rule also on the economic structure of the society is known. Before the coming of the Persians there seems probably to have existed great land-owners with their servile peasants who depended on the former for their subsistence. The Persians replaced the earlier land-owners (as it can be suggested from their behaviour elsewhere) and the peasants became serfs under the new aristocracy. With the cheap iron tools they could produce more and use the balance to buy industrial products.

As to religious customs and beliefs India owed much to the Iranian contact. The ceremonial washing of the hair of the Mauryan King when valuable gifts were made by the courtiers has its parallel in the Persian custom narrated by the Greek historian Herodotus.

Ancient Persians called themselves Aryans, probably meaning the people of Iran. The bearers of the foregoing

culture to India seem to the writer to be the Aryans mentioned in the ancient Indian literature. They are kith and kin of the earlier Indian Indo-Europeans.

The Vedic Culture

The vedic culture has much in common with the early Iranian culture. The Pantheon of thirty-three gods, the division of society into four classes (varnas) and the sacred rite of initiation of boys are most notable among them. The ritual of sacrifice as well as such technical terms as *yajna*, *mantra*, *hotar*, *soma* etc., employed in it are also common.

Though the religion of Zarathushtra is different from the earlier religion, we find it inheriting some of the earlier beliefs many of which are also found in vedic scriptures, especially Atharva-veda. The Rig-vedic Yama and Yami, the ruler of Hell and his consort, are found in Avesta as Yima and Yimeh, rulers of Paradise. In the Vedas they are children of vivasvat and in the Avesta of Vivahant.

According to the Vendidad anything that goes out of a person is dead matter and belongs to a demon. So in the shaving of hair and paring of the nails or even in breathing out there is the inherent danger of being the demon present; but the demons and evil spirits can be protected against by certain rites and spells. Any change in the usual nature of a thing is attributed to the influence of the demon. One such thing is the uncleanliness of women at particular times as that of delivery. The fiends attempting to kill the child and the mother can be kept away if the fire is lighted. So the scripture warns to take care of a pregnant woman by having fire continually lighted in her house and burning a candle after delivery. Here it may be noted that one of the original reasons for worshipping fire was its supposed efficacy to ward off the demons. The cave-men used fire to ward off the carnivors. The Bronze Age men used fire as a means to ward off demons. The fire cult is closely related to the demonology.

Again, according to the same Vendidad, one is to brandish a sword on four sides when the child is being delivered in order to save it from the fairy Aal who may kill it. Among the ancient Romans Intercidona, Pilumnus and Deverra, three gods, watched the pregnant women from the harming Sylvanus. At certain other periods also impurity is ascribed to woman also owing to the influence of a fiend. It is sin for a woman under such impurity to look at the water, the fire, the sun, the moon, animals and plants warns the zoroastrian scripture. Moreover, the cloth touched by the woman is considered to be polluted. Similar idea is found in a story narrated in the Vashishtha Dharma Sutras (V. 5. 7.).

The ancient Iranians considered death to be a triumph of a fiend called Drug Nasu who would fall upon the dead soon after a soul left the body and make the corpse unclean. According to them the look of a dog could expel the fiend from the dead body and in the case of living body the expulsion of the demon could be got by washing the body with the urine of ox and with water. After the death of a person they used to chant a spell in which the demon is called to perish.

The Dadistani-Dinik, an ancient Persian scripture, declares the existence of the soul for three days on the earth after death (see Manu) during which time the children of the deceased were apprised to observe certain ceremonies lest the departed soul might go to hell instead of heaven. The early stage of the departed soul was considered to be like that of a child requiring nourishment which the departed soul would get through funeral offerings. The Avestan Scriptures agree with the idea which is also alluded to in the Atharva-Veda. Three to ten days are prescribed for the ceremony by the Avestan scriptures and generally ten days by the Hindu scriptures.

Some amount of sorcery and witchcraft found in Atharva-Veda has its parallels in zoroastrianism. Curing sickness by washings, spells and incantations are common to both. Both scriptures deal with medicine, the vendidad devoting three

chapters. We thus see common belief and worship among the ancient and Zoroastrain Iranians and the early Vedic Indians.

In the field of philology also many close similarities are found. The vocabulary, grammar and sound-system of the early Iranian language and the Vedic language have such a close resemblance that an ancient Iranian scripture can be turned into Vedic without much alterations.

But significantly enough such striking similarities are found beyond the borders of Iran, in the land of ancient Mitanni, in Asia Minor. A document inscribed in modified cuneiform characters on clay tablets excavated from Boghaz Keui, the Hittite capital in Asia Minor, is a treaty of peace between the Mittannian King Mattiuaza, son of Dusratta, and the Hittite King Subiliuma, in about 1380 B.C., in which the Mittanni King invokes his gods '*ilāni Mi – it - tra - as – si – il ilāni U – ru - w – na – as - si – il ilu In – da – ra ilāna Nā – sa - at - ti – ia – an – na*' as witness. The gods invoked can be equated with the Vedic gods, Mitra, Varuna, Indra and Nasatyas. Another exciting inscription from Boghaz Keui of about the same date is a fragmentary document on chariot-racing by Kikkuli, a Mittannian, in which are used the words *aikavartanna, teravartanna, panzavartanna, shattavartanna* for one turning, three turnings, five turnings and seven turnings which are very near to the corresponding words in Sanskrit. Then again the word *mariannu* for a class of military nobility is mentioned in the same document which also has its parallel in *marya*, a young hero, in Sanskrit. The terminology clearly shows a close relation between the Sanskrit and the language of the Mittannian people of the early fourteenth century B.C.

Moreover a barbarian mountain tribe from the neighbourhood of Media called Kassites who had replaced the Amorite Dynasty of Babylon and took over the administrative apparatus set up by Hammurabi and the institutions of Sumerian-Babylonian civilization and ruled over Babylonia from about 1746 to 1180 B. C. had used the names *Shurias*

(sun), *Marytas* (wind-gods) and *Simalia* (queen of the snow mountains) which have their Indian parallels in *Surya*, *Maruts* and *Himalaya*.

From the similarity of gods worshipped and the language employed by the peoples of Mittanni (1380 B. C.), Iran and the Punjab (500 B. C.) one can adduce that the linguistic descendants of Mittanni came to Iran somewhen about 1000 B. C. and their descendants in turn to the Punjab by about 500 B. C.

Soon after 2000 B. C. Hittite chiefs belonging to the Indo-European race established a kingdom by uniting several independent small 'households' on the plateau of Asia Minor. In 1595 B. C. they even invaded Babylonia and later took Mittanni from the Aryan rulers and attacked Egyptian authority in Syria. The Hittites are found to have borrowed writing materials, characters, science, law, theology and poetry from the Sumero-Akkadian-Babylonian civilization. By 1450 B. C. some Indo-European chiefs founded a kingdom called Mittanni by conquering the western province of Assyrian kingdom. These Mittanni Indo-Europeans also adopted the culture of ancient Mesopotamia. They used cuneiform script for writing and Akkadian tongue for international correspondence. The rulers of Egypt, Hatti, Mittanni, Assyria and Babylon are known to have interchanged wives, physicians, soothsayers, representatives, gods and valuable goods. When pressed by Hittites Mittanni people might have migrated to Iran.

A considerable element of the ideas behind the hymns of the Vedas seems to have originated some 5000 years back in the land of Sumer. They took forms in the Mittanni language soon after 1500 B. C. and were developed in Iran perhaps in the early centuries of first Millennium B. C. It was again oriented in India in the middle of the first millennium B. C.

Max Muller, a German and a great oriental scholar of nineteenth century, has given about 1000 B. C. as a probable date for the Vedas. But the archæological evidence now available was not before him. Moreover, he was amidst the

Indian pandits who made exaggerated claims. Still he has rightly prophesied:

"I shall say even more, and I have said it before, namely, that supposing that the Vedic hymns were composed between 1500 and 1000 B. C., we can hardly understand how, at so early a date, the Indians had developed ideas which to us sound decidedly modern. I should give anything if I could escape from the conclusion that the collection of the Vedic Hymns, a collection in ten books, existed at least 1000 B. C., that is about 500 years before the rise of Buddhism. I do not mean to say that some thing may not be discovered hereafter to enable us to refer that collection to a later date. All I say is that, so far as we know *at present*, so far as all honest Sanskrit scholars know *at present*, we cannot well bring our pre-Buddhist literature into narrower limits than 500 years."—(Heritage of India, page 36.)

Some historians have taken the Buddhist legends of later age seriously for history, in which the Buddha is said to have studied the Upanishads, a later accomplishment of the Vedas, and hence they have hastily come to the erroneous conclusion that the Vedas must be earlier than the Buddha at least by few centuries. The Vedas apparently belong to the Iron Age of India.

Origin of Sanskrit

Now let us consider the language employed in the Vedas. That it is an artificial language is evident from its self-exposing name Sanskrit meaning 'the cultured.' The name Sanskrit presupposes an original language and that language is significantly named as Prakrit meaning natural.

Let us also compare the following few words from Pali, one of the Prakrit languages, with the corresponding words from Sanskrit: Dhamma–dharma, Vanna–varna, putta-putra, chakka - chakra, passina - prasna, nibbana - nirvana, vathu - vasthu, bikku - bhikshu. Here we see in Sanskrit words the

syllable s or r being added to Pali words or b substituted by v or kka by ksha.

We have also seen that the ancient Iranian language called Zend is very close to the Sanskrit. We also know that the Iranians came to India in the middle of the first millennium B. C. So the author reasonably supposes that the language of the ancient Iranians came to be mixed with the vernacular causing the creation of a hybrid language called Sanskrit. This artificial language became the administative language of the Iranian rulers in India and the vehicle of the hymns of the Iranian priests who accompanied them. In the Urdu of the Mughal times we have an analogy of the Sanskrit with the exception that the Sanskrit never was spoken by the common people. That is why in the dramas of the old, "the men of any social standing speak Sanskrit, except occasionally when addressing women. And even the women, especially those of higher rank, are supposed to understand, and occasionally, mostly when verses are put into their mouths, to speak it," as Rhys Davids puts it.

It may be noted that the word for son *puthro* of Zend stands for the Sanskrit word *putra* and for *putta* in Prakrit. We find the Sanskrit word is closer to the Zend than to the Prakrit word. But significantly enough the word is represented by *puta* in Old Slavonic and *putus* in Latin. We also find that the Prakrit word is closer to the Latin word and much closer to the Old Slavonic word than to the Sanskrit or Zend. So the etymology of the above word philologically proves that Prakrit is older than Sanskrit.

Some other languages like Greek had their own shares in forming Sanskrit. The terms like *Kendra, harija, jyamitra* and *hora* are derived from the Greek. The word three in Sanskrit seems to be taken from Greek without any change as the word is less close to those of the Zend and Prakrit.

In the light of the above evidence I am inclined to conclude that the Sanskrit language is a hybrid language that

originated in the Punjab in the fifth century B. C. as a result of the intermixture of the ancient Iranian language and the Prakrit language prevailing in the Punjab, consequent to the invasion of the achæmenid rulers of Iran. Further, by taking all the relevent factors into consideration I am also led to the conclusion that we must suppose the pre-existence of proto-vedic hymns and the majority of their Indian version in Sanskrit being composed in the fifth and fourth centuries B.C. When and by whom the extant collection of the Vedas into four books called Yajur-veda, Sama-veda, Atharva-veda and Rig-veda were made will be dealt with in due course. To state briefly, the extant recensions of the four Vedas were ready at least by first century B. C. Scholars have noticed the influence of Prakrit in vedic texts.

Another important point which struck me is that the Aryans alluded to in the Vedas really refer to the Iranians who came to India in the middle of the first millennium B. C. In the Avesta, a sacred text of the Zoroastrians, the land of Iran is known as Ariyano-peyijo. The Roman historians had called the modern Iraq as Ariano. However, it is evident that in ancient times the word Aryans meant the people of Iran. These new comers to India also fall within the Indo-European group and thus are kinsmen to the Indo-Europeans who came much earlier to India. The early Indo-Europeans can be termed, as stated elsewhere, as Prakrit people who spoke Prakrit language and the late Indo-Europeans as Aryans proper whose cultural and administrative language was Sanskrit.

Deities in the Vedas

Having considered the date and the language of the Vedas and the ethnic people related with the Vedas, we shall come again to the deities invoked in the Vedas. The principal deity to whom larger number of hymns or *mantras* are addressed in the Vedas is Indra, the god of thunder. He can

be easily equated with the Indara of the Mittanni people of the fourteenth century B. C. and with some difficulty with the Weather-god of the Hittites of the same date. In Syrian art he is represented with a symbolic flash of lightning and in Anatolia driving in a primitive sort of chariot drawn by oxen over the heads of personified mountains. In the Hittite mythology he figures as the slayer of the dragon called Illuyankas. From this we are to infer that the ancient people of Western Asia worshipped a proto-weather god whose mythology was inherited by various peoples with some differences consequent to which he became the Weather-god of the Hittites, Indara of the people of Mittanni and Zeus (Zeus the thunderer was once a Rain-god) of the Greeks.

Whom the Aswins, the twin gods invoked in the Vedas, represent is a bone of contention between the scholars. Yāska quotes various opinions (Nirukta Ch. XII) such as they are day and night or earth and sky or the sun and the moon or even two pious kings of the past. Max Muller has explained the Aswins as the gods of Morning and Evening. But according to Monier-Williams the Aswins were fabled as twin sons of the sun (by his wife Aswini), ever young and handsome, travelling in a golden car, and precursors of Ushas, the dawn. He continues: "They are sometimes called Dasras, as divine physicians, 'destroyers of diseases'; sometimes Nasatyas, as 'never untrue'. They appear to have been personifications of two luminous points or rays, imagined to precede the break of day." Their devotee, with uplifted hands sends song of praise to these two helpers as divine physicians who cure sickness, and even enable the lame walk and provide sight to the blind.

Agni (fire), Surya (sun), Varuna (god of sky), Mitra (god of day), Maruts (storm gods), Ushas (goddess of the dawn), Prithvi (the earth) and Yama (the god of the departed spirits and lately the appointed judge of the dead) are among other deities to whom hymns of praise are addressed to in the Vedas. Gods parallel to them were worshipped by the ancient people

of Western Asia. The Uruwana of the Mittanni people is the Urunus of the ancient Greek and is the Varuna of the Vedas, Indra, Agni and Surya constitute the Vedicc hief triad of gods. Some hymns allude to the pantheon of thirty-three gods.

The ancient people regarded the principal natural forces as manifestations of different gods or of one god in different moods. They personified powers of nature in their own image and worshipped them as distinct gods. The hymns were chanted to increase the power of sacrifices which themselves were sympathetic magic rites meant to secure victory or rain and wealth. This religion of worshipping nature is termed by Monier-Williams as 'physiolatry'.

The dead were either cremated or buried by the Vedic people. In the Vedas, in some cases, the soul is said to depart to the waters or plants after death, while its migration to another body is not mentioned. So we can safely suppose that the early vedic poets believed in the immortality of the souls and they did not know about rebirth. The vedic hymns contain no allusion to images or symbols representing deities. The Vedic people had no permanent temples and they made sacrifices at the altars made temporarily. In Vedic sacrifice only animals are sacrificed. The Vedas belong to the Iron Age as iron is mentioned in them. Piggott has shown that the war-chariot of the Aryans in India resembles the chariots from Iron Age Europe.

History of Rituals

The ritual of sacrifice is known to have practiced as early as 12,000 to 20,000 years ago by the Neolithic peoples who had lived in the lands like Mesopotamia. The rite was conducted at the commencement of seed-time to ensure a good crop in which even human beings were sacrificed by those primitive people who possessed, according to Sir J. G. Frazer, myth-dreaming childish mind. However, later, human sacrifices became rare and seems to have not persisted long.

Animals or bread dummies had been substituted for the victim by about 2000 B. C.

In lower Mesopotamia and in Egypt, before 4000 or 5000 B. C., however, appear a brownish people with prominent noses with Bronze Age cultures based upon a temple and sacrifices with priests who applied astronomy. In Sumeria their big tower-like temples were built of sun-dried brick on a platform while in Egypt, where the king was considered as a god above the priests, the temple was a massive building raised on ground floor. This cult of sacrifice reached Crete by 4000 B. C. and China before 3000 B. C. The primitive Chinese civilization also was based upon a temple in which priest-kings and priests performed the blood sacrifices. The Neolithic people of Mongolian stock introduced into America, apparently through the strait of Behring, the sacrificial culture before 1000 B. C. where even human sacrifices persisted comparatively to a later period.

The *Yajna* (sacrifice) ritual of Vedic India involves the production of fire by friction of two pieces of wood, building of a cottage of specific wood and grass without using iron, milking of cows, making curds, pounding of corn with stone and cooking beasts after killing and skinning them. While directing to perform the acts the priests are to recite various hymns including the hymns on creation and the dawn. Shouting is to be made to drive away the evil spirits and to cure diseases. From the above nature of Vedic ritual it has been pointed out that Vedic ritual represents a primitive life. The ritual, however, shows that the vestiges of Neolithic tradition is embodied in the Vedic culture. It indicates that the ritual was originated in the Neolithic Culture, perhaps of Western Asia. The early Vedic Indra fought with stones and bones and won cows and fields to graze for the cattle. This also shows the influence of the imagination of the Neolithic man in embodying Indra.

Fire was worshipped by early man not merely considering

its material utility values but mainly its spiritual values. In demonology fire has a very important place due to its presumed efficacy to ward off hostile goblins and ghosts (Rig-Veda: 3-15-1). The belief seems to be an outcome of the primitive logic that ghosts appear at night and disappear by dawn clearly showing their fear for light. When iron was discovered the ancient people thought that iron weapon could not only ward against wild beasts and human enemies but could scare away demons and other evil spirits. This tradition is even to-day kept up among some people who believe that evil spirits can be kept away if one is accompanied by a piece of iron.

The dark coloured foes of the Aryans and their gods designated as Dāsa and Dasyu in the Vedas do not seem to allude to any people of Vedic India. They may refer to the ancient mythology inherited by the Vedic people. Among the ancient scrolls in a cave at Qumran discovered by Dedouin in 1947 is a work which has been named 'The War of the Sons of Light against the Sons of Darkness.' Again, among the clay tablets discovered in the ruins of the library of Ashurbanipal at Nineveh in 1873 are some with remains of an inscription stating that the formation of an ordered universe is due to the success of the great Babylonian god called Marduk over the deity of chaos and darkness named Tiamat. The document containing the story is dated about 2100 or 2200 B. C. In the ancient mythology of the Mittanni people the Indra might have played the part of Marduk. The Hebrew account of the story of creation is suggested likely to be a monotheistic adaptation of the ancient Babylonian myth.

Rituals like fertility performed communally by all savage clansmen are known to have been monopolised by 'secret societies'. The initiation into these societies was to be purchased by presents and feasts. Members of these societies enjoyed a higher rank in the savage community.

The initiation prescribed in the Vedas also seem to have its origin in the ancient civilization of Sumero-Babylon. The

most important thing in the rite of initiation among the Vedic people was bearing a sacred thread by the youth. But Christians administered the sacrament by a three fold immersion of the body in water or either by a three fold pouring of water or by a three fold sprinkling of water over the person. The usual custom in ancient times was immersion which is evidenced by the ancient baptisteries. According to the New Testament baptism implies a cleansing from sin. Jewish proselyte baptism, from which the Christian usage was derived, was agreed by scholars as the symbol of conscious discipleship. It seems, therefore, likely that the Jewish and Vedic rites of initiations are derived from a common source, probably from the Sumero-Babylonian culture.

In the very ancient times there seems to have existed an idea that one should not worship a deity without wearing a second cloth apart from his loin clothes. This religious practice might have symbolised into wearing a permanent thread among the ancient Brahmins.

Caste System

The untouchability observed by the Vedic people is also not wanting its parallel in ancient Western Asia. The ministrants of the temple, according to an ancient Hittite tablet of disciplinary instruction for priests and temple-servants of second millennium B. C., shall not approach the deity without undergoing the necessary rite of purification if they have suffered any sort of pollution. The ancient culture of Mesopotamia may lie behind this practice of pollution.

We have seen that any change in the usual nature of a thing is attributed by the ancient people to the influence of the demon. The demon got at where there is uncleanliness. Demonology seems to lie mainly behind the untouchability of the caste system. Demonology originated from the sincere investigation of the savage into biological and social phenomenon of the mankind. The barbarians who inherited the

doctrine further developed it. As ancient India was a land occupied by many races there arose a temptation among the people to stick to the caste division owing to their anxiety to keep up their social prestige. Economical advantages enjoyed by the upper classes contributed another influential force in preserving the system all through the medieval age down to the modern age. As writing was considered to be a mystery its adepts had a privileged position in society in ancient Sumer and Egypt and became 'exempt from all manual tasks' as recorded by an Egyptian papyrus. This factor also contributed to the formation of caste system in early times.

At the end of the period there arose an ancient city to the east of the Indus, lying on the high road from Central Asia to the interior of India, by the name Takshasilā (Taxila of Greeks). It earned reputation as a great centre of trade and a high seat of learning technical sciences such as medicine and war. The Greek writers have mentioned about the exposure of marriageable girls in the market place of the city for inspection by prospective husbands. The Greeks when they entered into India in the fourth century B. C. were surprised to notice the exposure of the dead body to be devoured by vultures. Another 'strange and unusual' custom found by them was the practice of *Sati* among the Kathoi (Kathas), a Kshatriya clan. Some isolated Scythian families who had penetrated to India may account for this practice of *Sati*. Persians also benefited from their conquests of North-West India. They learned to cultivate rice from India.

Buddhism

The sacrificial ritual and the caste system introduced into India by the Iranians or the Aryans were received by the local population not without protests. At least a section of the people could not understand the wisdom involved in killing so many animals at the sacrifice or in the supposed efficacy of the rituals and the justice involved in the caste

system. They might have found themselves difficult to reconcile with the new belief. A luminious figure named Gotama was among the dissidents who gave a lead to them and propagated a code of life called *Dhamma* (Dharma in Sanskrit) or duty to be substituted instead of the religious rituals and customs of the newcomers. He was born to a person, perhaps of some position though not a king as is claimed in legends, in a village or town named Kapila or Kapilavastu which lies just over the border of Nepal. According to the Ceylonese chronicles he was born in 563 B. C. and died in 483 B. C. Even according to this date Gotama lived for 33 years after the Iranian rule in India was begun.

Buddhism is the religion—phylosophy which has developed about the Teaching of Gotama, the Buddha. Gotama himself wrote nothing and none of the books on his Teaching was written down for at least four centuries after his death. The earliest recorded teaching, and probably nearest to the original teaching, is perhaps what contained in the Asoka Edicts of the middle of third century B. C. They are set out in full by Rhys Davids, a summary of which is given below:

"Truth, purity, liberty, compassion and non-intoxication are the principles of the Dhamma. Any gift or any aid is not so good as giving others the gift of the Dhamma or helping others to gain the Dhamma. Animals should not be killed for sacrifice. Abstaining from injuring living creatures is good. Avoiding disputes and economy in expenditure are highly commendable. Purity of heart, gratitude and fidelity are always possible and good for the rich and the poor alike. The rites performed by the people for luck on occasion of sickness, marriage, child-birth and journey are worthless ceremonies. But the lucky ceremony of the Dhamma is full of fruit. In the Dhamma is also included right conduct towards slaves and servants, honour towards teachers, docility to parents, self-restraint towards living things, and liberality to Brahmins and recluses. The above lucky ceremony provides

lasting profit. Honour and toleration should be shown to all, including the laymen and recluses of other creeds. One should not disparage other sects in order to exalt his own. To be self-restraint in words is excellent. A man must avoid brutality, cruelty, anger, pride and slandering. That will be to his advantage in this world and in the world to come."

When we consider its date, the Dhamma is described as the duty of all the good layman in extraordinary simplicity. And Rhys Davids points out that 'there is not a word about God, or the soul, not a word about Buddha or Buddhism.' He explains that 'the appeal is made, in apparent confidence that the statements are self-evident, to all the subjects of the empire' and the 'ideal must have been already widely accepted, though men did not always act up to it.'

The Buddhism as is known to-day took its form during the early centuries of Christian era. It postulates that the soul of a person after the death enters into another body to lead a life again until the soul is freed from the wheel of birth and got permanent salvation as a consequence to the leading of a perfect life by controlling desires in the last life. When the soul is freed from the wheel of birth which is full of misery, it is said to attain the sublime state called Nibbana in Pali and Nirvana in Sanskrit. The rebirth is attributed to the unfulfilled desires of the previous birth and the misfortunes of the life owing to the sins occurred in the previous life. The fortunes of a life are effected by the deeds of a person in the previous life. Gotama was, later, known as the Buddha (the enlightened) from which the religion derived its name.

The eight-fold path known in Gotama's name is famous: It comprises Right Understanding, Right Thoughts or Motives, Right Speech, Right Action, Right Means of Livelihood, Right Effort, Right Recollection and Right Meditation. The emergence of iron tools actuated the growth of private properties and population which probably demanded in the society a strict descipline to new ethics arising therefrom.

Chapter V

EARLY HISTORIC AGE

The Advent of the Greeks

In the later part of fourth century B. C. India was again invaded by a third wave of Indo-Europeans called Greeks who had established themselves in Greece by about 1200 B. C. During the first millennium B. C. they were the most civilized people among the European nations. Their king, Alexander of Mecedonia, led an expedition of conquering the East. After subduing the Persians he crossed the Hindu Kush (now Hind Koh) and garrisoned Kabul or some stronghold nearby. He ruthlessly almost exterminated the wild tribes of the area.

Hephaestion and Perdiccas, two generals of Alexander, led in advance the bulk of the Greek army and crossed the north-west Khyber Pass in December 327 B. C. or January 326. As they reached the river Indus they constructed a bridge of boats over the river at Und or Ohind, ten miles above Attock. In February 326 B. C. the Mecedonian king crossed the Indus and was received friendly by Āmbhi, the ruler of the Taxilan Kingdom called Taxiles by the Greeks, who had subdued and sought the friendship of Alexander earlier.

But when he reached the right bank of river Jhelam, a tributary of the Indus, in the middle of May he had to face a stiff opposition from an Indian king, whom the Greeks called Porus, who had by the time garrisoned the left bank of the Jhelam. To add to the difficulties of the Greeks the river was then in full flood. Under the circumstances the Greeks could not cross the river and after waiting several weeks, they planned a secret passage across the river some sixteen miles

above their camp where they could take advantage of a sharp bend of Jhelam and a useful island in the river covered by a hill from the view of Porus' camp. In the battle that followed Porus was defeated but he was given back his territory in token of his valour and character.

After adding some more territories to his dominion Alexander retreated in October 326 B. C. down the Jhelam and the Indus encountering the tribes who resisted the invader on the way. Though the tribe of Malavas put an opposition to the invader at first, they made peace with him by offering large gifts which included 100 talents of 'white iron'. From the mouths of Indus Alexander returned by the land route across Gedrosia (Baluchistan) and reached Karmania in February 324 B.C. and Susa in May and died in Babylon in June 323 B. C. in his thirty-third year.

The conquests of Alexander made Egypt, Western Asia and North-west India a province of the economic and cultural system of the Greeks. This unification of several territories was achieved by Alexander at a frightful cost in wealth and lives of mankind. Nevertheless, it promoted intercourse over a larger area and enormously accelerated the circulation of ideas. In the Greek bureaucracy higher ranks were held by Greeks. Greek language came to be known throughout the vast area under Alexander. For the whole of his empire Alexander introduced uniform currency.

Alexander had appointed three Greek satraps (governors) and one Indian satrap, namely, Paurava. But in the second partition of the empire in 321 B. C. at Triparadisus, the charge of the Punjab and the Indus Valley nominally fell to the lot of Porus and Āmbhi.

In the year 305 B. C. Seleucus Nicator, the Greek ruler of Western Asia though called King of Syria, crossed the Indus and made an attempt to regain the Indian provinces of Alexander. In the campaign he was encountered by Chandragupta (or Sandro Kotus of the Greeks), a King of Magadha,

and had to make peace with the latter. The Magadha king got the provinces of Paropanisadai, Aria, Arachosia and Gedrosia from the Greeks. Presumably a daughter of Seleucus was given in marriage either to Chandragupta or to his son Bindusara. In the year 302 B. C. Seleucus Nicator sent an experienced officer of Arachosia called Megasthenes, as his ambassador to the Magadhan court at Pātaliputra. The Greek expedition to India is known from Greek writers whose statements have been borne out by archæological evidence, mainly numismatic.

The Brahmi Script

In the Greek empire official language was Greek. Moreover, owing to the presence of the Greek princess and the Greek envoy with their Greek attendants, and the Greek artists and artisans employed at the court, the Magadhan court at Pataliputra came to be acquainted with the Greek script. It is certainly probable that Kharoshthi script was known in the court. Eventually the court people, I think, evolved a convenient script from Greek and Kharoshthi scripts sometime about 300 B. C. The new script is known as Brahmi. It took its name only at a later period. The Brahmi script owes its vowels, some consonants and the rightwards direction to the Greek script. It owes some consonants and the vocalization of the majority of characters and their arrangement to the Kharoshthi script. Thus it became, as Rhys Davids wrote, 'the most perfect instrument of phonetic expression the world has yet seen'. Though the Greek script is derived from the Phœnician alphabet, Greeks added vowels to their script and made writing easy. They also for the first time changed the direction of Phœnician writing in writing their own script.

The immediate result of the evolution of Brahmi script was an enormous rise in literature in India. Before dealing with that we shall see an initial stage of Brahmi writing.

According to Rhys Davids the oldest inscription yet discovered in India was the inscription on the vase discovered by Peppe in the Sakiya Tope. About it Davids writes:

"As to the orthography, the consonants are roughly and rudely written. The only vowels expressed, by signs hung on to the consonants, are i and u and (in one doubtful case) either e or o. No consonants are written double, inspite of the fact that double consonants, pronounced double (as in Italian of to-day), were a marked feature of the vernacular. No groups of consonants (such as the *ndr* in *hundred* or the *pl* and *st* in the word *plastic*) are written as groups. Thus the word for "of the Sakiyas" is written '*skiynm*', which is the nearest orthography the writer could get, or troubled himself to get, for the word as spoken in the living local dialect. This may have been either *Sakiyanam* or *Sakkiyanam* (pronounced Sak-kiyanang)."

"It will be noticed that the orthography, therefore, is very imperfect. It is, strictly speaking not so much an alphabet as a syllabary. The light vowel *a*, pronounced as in the word *vocal*, is supposed inherent in every consonant on to which no other vowel is hung. No attempt is yet made to distinguish between long and short vowels. No dipthongs are written. There is no expedient as yet to show that a consonant is to be pronounced as a final, that is, without the inherent a; and this, together with the absence of groups, is what renders it impossible to express the double consonants so frequent in the actual language."

Such difficulties were overcome in the next stage of Asoka inscriptions of the middle of the third century B. C. In the inscriptions the orthographical expedients are greatly improved. The long vowels are written as such. The dipthongs are used. Many groups of consonants are represented as such.

Near Vidisā, the early seat of the Sunga kings, is discovered a punch-marked coin bearing the inscription *Rano*

Dhammapala in Brahmi script written from right to left. This probably shows the imitation by the northwest people to write the Brahmi characters in the direction used in writing the Kharoshthi characters, which is familiar to the people of the locality.

The ancient people of Sumer and Babylon wrote on clay tablets. The Greek colonists in Asia Minor called Ionians first wrote on a hide or pieces of leather, which they called diphthera and later vellum or parchment was used by about 500 B. C. The Ionian writers were known by a general term *Logographi*, or *Logioi* or *Logopoioi*. The ancient writers in India wrote with an iron style, on pieces of bark such as birch bark or on some leaves. At first no ink was used and the writing could not be made out easily and as the materials used are fragile the writings could not be used for a long time. Some time later a method of preparing the leaves of the corypha talipot palm or pieces of bark in order to prevent their breaking was invented. Soon an ink was used to rub over such a leaf on which the letters were scratched upon, which would remain in the scratches providing clear legibility to the writing. These inventions paved the way for the production of numerous books called *Granthas* in Indian languages.

All the scripts now used in India, Burma, Siam and Ceylon are derived from the Brahmi script.

The Development of Buddhism and Mathematics

The most brilliant and original of Indian archæologists, James Prinsep, with the constant help from George Turnour of the Ceylon Civil Service and with the help of Ceylon books provided by the latter, made the striking identification of the King Piyadassi of the inscriptions with the King Asoka of history. Subsequently Prinsep read the Asoka inscriptions.

The chronology of the Mauryan kings, Chandragupta and his descendants, is based on the contemporaneity of

Chandragupta with Seleucus and the thirteenth Rock Edict dated in the thirteenth year after the coronation of Asoka, grandson of the former. In the Rock Edict Greek kings Antigonus Gonatas of Mecedon, Ptolemy Philadelphus of Egypt, Antiochus Theos of Syria, Magas of Cyrene (258 B. C.) and Alexander of Epirus (272–258) are mentioned together. As at least one of them died in 258 B. C. the inscription could have been made at the latest about 258 B. C. So Asoka's coronation was found to fall about 270 B. C.

Seeing the sufferings inflicted on the people in the war he made to conquer Kalinga (modern Orissa and Ganjam) the mind of Asoka was moved and consequently he embraced Buddhism. He did much to popularise Buddhism. At distant extremities of his great dominion he engraved his Edicts upon rocks and stone pillars proclaiming the ethics of Buddhism.

The oldest Buddhist literature are the *Suttas* in prose in Pali language containing Buddhist doctrine probably written in the early half of third century B. C. Some of the Suttas are rendered in verse. The Suttas are followed by *Suttantas* (appendixes to the Suttas). So by about 250 B. C. there came into being the literatures in Pal called *Moneyya Sutta*, *Anagata-bhayani* (also a Sutta), *Ariya-Vasani* (a Suttanta) and *Upatisa Pasina* ("the question put by Upatisa" more commonly known as Sariputta). These are the texts referred by Asoka in his Bhabra Edict addressed to the Brethren and Sisters of the Buddhist Order frequently to hear and meditate upon.

Towards the close of the third century B. C. some Buddhists seem to have composed some lyrics in poetry, many of the contents perhaps being taken from the current proverbs and favourable sayings. Sixteen such lyrics are strung together by a framework of story and is called as *Parayana*. It is six times quoted or referred to by name as a separate poem in the later *Nikayas* and the commentator calls it a

Suttanta. Another piece of Buddhist work of about the same date is "The Eights", most of the lyrics in it containing eight stanzas apiece.

In the third century B. C. an outstanding invention in arithmetic was made in India. A system of notation was invented from which developed the scheme of numerals. It replaced the clumsy Roman figures and as the European people got the numerals from the Arabs they misnamed it as Arabic unknowing the original source. These numerals are said to appear in the Asoka Edicts with slight variations.

During the full Bronze Age, the Babylonian mathematicians by the time of the rule of Amorite dynasty of Babylon had discovered a notation based on 'place value'. They used 60 as their arithmetical base. The present day mathematics developed through Greeks and Arabs was based on the above arithmetics founded in the temple schools of Mesopotamia under the dynasty of Hammurabi. In the third century B. C. the Babylonians agreed upon a sign of zero. The sign for zero adopted was in the form of an O (for ouden, nothing). Babylonians are said to have known the decimal mark late in the First Millennium B.C. With the invention of numerals the basis for modern mathematics was fully laid. The recurring decimal notation was discovered in Europe in A. D. 1585.

In the first half of the second century B. C. the Parayana and Octades seem to have been brought together into a single book perhaps under the name *Sutta Nipata* which is the subject of an old commentary called the *Niddesa*. At a later period the book was enlarged into five *cantos* (chapters), the first three cantos containing subsequent thirty-eight lyrics.

The Expansion of Greek Influence

An event of great importance during the second century B. C. is the spread of Greek rule over a large part of India and the consequent spread of their culture among the Indians.

Diodotus, a Greek governor of Bactria,comprising the country lying between the Hindu Kush (Hind Koh) and the Oxus, appointed by Seleucus proclaimed his independence about 250 B. C. Arachosia and Drangiana (Seistan) which were once part of Mauryan empire were annexed by one of his successors called Euthydemus which was borne out by his coins found there in abundance. He died about 190 B. C. Demetrius, son of Euthydemus, conquered a considerable part of north and central India and according to Strabo the Greeks advanced even to the Ganges and Palibothra. In the expedition he was assisted by his younger contemporaries Apollodotus and Menander, both of them having no connection with Bactria.

The grammarian Patanjali mentions the besiege of Sāketa (in Oudh) and Madhyamikā (Nagarī near Chitor in Rajputana) by the *Yavanas*. The Yavanas is the name given to the Greeks, the word being derived from their earlier colony at Ionia in Asia Minor. The *Yuga-Purana* chapter of *Gārgī Samhitā* states that the valiant Greeks conquered Saketa, the Panchāla country (Jumna–Ganges doab), Mathurā and reached Pataliputra. Chaucer had called Demetrius as '*the grete Emetreas, the King of Inde.*'

His capital Sāgala (Sialkot) was renamed as Euthydemia in memory of his father. The coins of Demetrius have inscriptions in Greek and Prakrit languages inscribed in Greek and Kharoshthi scripts. They bear his fine effigy helmeted by an elephant scalp. The title *aniketus* (invincible) is also found inscribed on his coins. The expansion of the Greeks reduced the Mauryan empire and the successors of Asoka had to contain their rule to Magadha.

Probably after the death of Demetrius in about 175 B.C. Menander and Apollodotus seem to have divided the Indian empire of Demetrius among themselves while Eucratides proclaimed himself King in Bactria. Menander got the eastern portion of the Greek empire and Apollodotus the remaining portion.

From his capital Sagala Menander ruled for a long time as is evidenced from his coins on which he is represented in all forms from youth to old age. A Buddhist monk called Nagasena converted him to Buddhism. A famous Buddhist work in Pāli called *Milinda Panha* (the questions of Milinda) narrates the conversations of Menander with Nagasena, ending in his conversion. That he was held in high esteem by the Buddhists is testified by the eagerness of many cities to get a share of his cremated ashes. He died soon after 150 B. C.

Nāgasena is known to be an *Anatta* (no soul) philosopher. He does not believe in an immortal soul and considers the self to be a unified complex of body. Since the *Milinda Panha*, in which the *Anatta* philosophy is expounded, is a later composition the writer cannot hold Nagasena wholly responsible for the Anatta philosophy.

The Middle Path *(Madhyamikasastra)* of the Buddhism seems to me to be inspired by Menandar. It is well-known that the ancient Greeks generally followed a middle way in all matters. At the instance of the king the Buddhist priest Nagasena might have preached the new path. The 'wheel of Dharma' of the Buddhists seems to be after the 'wheel of births' described in the Orphic myths of the ancient Greeks.

Apollodotus might have ruled north-west India, Indus Valley, Gujarat and Western Deccan. But Eucratides, the new Greek King of Bactria, seized from him Ariana, Kabul Valley and the north-west India and also restruck the coins issued by Apollodotus. Eucratides in turn lost Ariana to the Greek ruler Mithradates I in Parthia and soon after his death in 155 B. C. his successors even lost Bactria to the Scythians. But his successors ruled the country between Takshasila to Pushkalāvati (Charsadda) until the Pahlavas displaced them in 25 B. C. The rulers belonging to the house of Euthydemus reigned in the Punjab until they were conquered by the Saka kings in the first century B. C.

The Greek contacts with India begun in the fourth century B. C. and strengthened much during their reign of about two centuries in India have greatly influenced the Indian culture. In civilization the ancient Greeks were in advance of the other European nations as they were the first to inherit the old civilization of western Asia owing to the very nearness of Greece to Western Asia. When they had settlements in Asia Minor, especially in Ionia, it became easier to them to gain the knowledge accumulated in Western Asia during thousands of years of Sumero-Babylonian civilization.

In the field of literature Greek contribution to India is remarkable. The plan of the theatre was introduced into India by the Greeks and is attested by the term *Yavanika* for curtain. The Indian drama is said to be after Greek model.

It will be appropriate here to trace the origin and development of drama. According to Zamiatnin puppet plays imitating the generative process were employed in the *sympathetic* rites to ensure food-supply and promote the multiplication of the hunted game by the societies of Palæolithic savagery such as the Gravettians of the north Pontic Zone who lived about 20,000 years ago.

The societies of Neolithic barbarism such as those existed in Hither Asia and the Mediterranean basin also believed that the ceremonial union of the sexes would symbolize and so *cause* the fertilization of nature.

The early dramatization of myth is found in Babylonia. During the New Year's festival the people of ancient Babylonia acted the Victory of their god Marduk won over the might of Chaos, when the world was created. Among the extant dramatic literature, the earliest is a papyrus document of the Ramesseum found among archives of about 2000 B. C. The above papyrus was in a manuscript assignable to the close of the twelfth dynasty. The drama was evidently

composed for acting on the occasion of the accession of Sesostris I to the throne. The earliest of the Greek dramas were the eleven plays written by Aeschylus about 480 B. C. after the Marathon War of 490 B. C. in which the author had fought.

The Greeks introduced the beast fables known as Aesop fables many of which were the inspiration for the Buddhist Jataka stories and reappear in the later *Panchatantra*. The Greeks seem to have imported the beast fables from Western Asia. The lion, the jackal and the peacock were found in Western Asia in ancient times while they were not found in Greece. And there is no evidence to show that the fables existed in India before the Greek contacts. Aesop was born about 620 B. C. and died in 544 B. C. He was mentioned by Herodotus as a Greek slave. The earliest of the surviving collections of the Aesop fables were made by Babrius. The Buddhists, while utilising many of the beast fables in their Jataka stories, modified them, in order to suit Buddhist ethics.

The Greek contribution to Indian knowledge of Mathematics and astronomy was very considerable. The Greek contribution to the Indian astronomy was remembered even in the sixth century A. D. by Varāhamihira who paid a high compliment to Greek astronomers who, according to him deserved much respect as our own *rishis*. The terms *hora*, *harija*, *k-ndra* and *jyāmitra* are Greek words Sanskritised. Even the Sanskrit word *three* seems to be derived from Greek as its equivalents in Prakrit and Zend languages differ a little. By the way, mention must be made about the equation of the word *Atma* of the Sanskrit with the Greek word *Atmos*.

But the Greeks were known to have derived their knowledge of mathematics, geometry, astronomy and astrology from the ancient Mesopotamia and Egypt. The non-Semitic Sumerians who were predominant in Mesopotamia

are found to have had an elementary knowledge of mathematics and engineering between 3500 B. C. and 2500 B. C. Tablets of clay containing tables of multiplication, squares and cubes have been discovered from Babylonia. A duodecimal system enabling the calculation of fractions easy and a decimal system probably derived from our ten fingers are found to have existed. As a combination of the two systems special importance was given to the number sixty. The unit of length used by Babylonians was called finger and was equal to 1·65 centimetres or about ⅗ inch. The length of their foot was 20 fingers and the cubit contained 30 fingers while the pole was 12 cubits. The sexagesimal notation for tables of angular measurements used by Alexandrian mathematicians was probably learned by them from Babylonians.

Such knowledge was made subject to rational examination by the Greeks of Ionia who were consequently the first to create science. Their attempt for the conversion of the empirical rules for land measuring, mostly discovered by the Egyptians, into the deductive science of geometry culminated in the formulation made by Euclid of Alexandria about 300 B.C. Pythagoras learned probably from Egyptian architects the trick of making a right-angle with the help of a cord divided either in the proportions 3, 4 and 5 or in the proportions 5, 12 and 13. Later, the Brahmans of India evidently used the method for constructing altars. By about 1800 B. C. the Babylonians were familiar with the fact that in a right-angled triangle the sides of which are in the proportion of either 3 to 4 or 5 to 12, the square on the side opposite the right angle is equal to the sum of the squares on the sides containing the right-angle. This is attested by a tablet from Babylonia, now kept in the British Museum. But Pythagoras *generalised* that in *any* right-angled triangle the square on the hypotenuse is equal to the sum of the squares on the two adjacent sides. The ancient Greek science was built on the foundations achieved by the Babylonian and Egyptian science. The first

Greek natural philosopher named Thales was half a Phœnician and Pythagoras is known to have studied his geometry in Egypt.

About 2000 B. C. Babylonians settled down a year to one of 360 days divided into twelve months adding an extra month to make necessary adjustments from time to time. They fixed another unit of time, the week of seven days, each day being named respectively after the Sun, Moon and the five known planets which was derived from the observation of the movement of the planets among the fixed stars. They divided the day into hours, minutes and seconds. The movement of the Sun across the sky was marked out into twelve divisions to agree with the months. Every division was named after some mythical deity or animal and was represented by an apt symbol. Consequently, each division was known by the names Ram, the Crab, the Scorpion and other animals. Later the division was related with some groups of stars. The Babylonian priests used to write down the aspects of heavens they observed on clay tablets. From this they could adduce the periodicity of astronomical events and thereby they were enabled by the sixth century B. C. to predict the eclipses.

The Babylonians are found to have compiled a great catalogue of stars by about 1500 B. C., copies of which are found in the Hittite capital in Asia Minor. The catalogue was revised in Assyria soon after 1100 B. C. and by 800 B. C. the list contained the position of stars based on a system similar to the modern *equatorial co-ordinates*. Another system of importance practiced by the Babylonians from about 747 B. C. was the reckoning of years from a fixed point such as '*Era of Nabonassar*', and dating events from it as like the Christian era of our times.

The Greek philosophers collected such knowledge from Babylonians and Egyptians and added to them their own observations. Thales, the first natural philosopher, is said to

have successfully predicted an eclipse of the sun, somewhat correctly that of 585 B.C. Still that he or his predecessors are not found to have understood the cause of eclipses is evidenced from the statement made by Anagoras who is believed to have lived between 500 and 430 B.C.

Beginning certainly from accidental coincidences, the ancient Babylonians began to believe that the stars predicted the course of human affairs. From the observations of the position of the heavenly bodies with the human affairs they adduced astrology which reached its zenith about 540 B.C. Two centuries after the Chaldaeans had conquered the country the astrology spread to Greece from Babylon and then to other parts of the then known world.

Even during the Bronze Age the Sumerians and the Babylonians had reduced to writing their medical-lore based on the magical theory of disease as due to possession by evil spirits. A few new spells and drugs were added to it by the Assyrians. The Greeks had their healing god in Aesculapius who made wonderful cures in their temples. Medical treatises recorded on Egyptian papyri dating about 1600 B.C. are discovered from Ebers. Another papyrus of similar type of about 2000 B.C. was discovered by Edwin Smith. The first Egyptian physician was named I-am-hotep (he who cometh in peace) who seemed to have lived about 4500 B.C. and was deified, as a god of medicine, later. Though incantations were employed by the Egyptians, their medicine was rational. The dispensing of drugs and essences became of a high order. The Egyptian medicine spread to Greece and in later times it spread to Western Europe from Greece and Alexandria. That the Greek medicine soon became free from demonology is evidenced from the writings of Hippocrates (460-350 B.C.) and others. By about 500 B.C. Greek medicine attained a great fame even in Western Asia so that Darius brought a Greek physician to his palace who treated successfully his queen.

The Greek contribution to Indian religions and philosophies is highly remarkable. The followers of Brahminism adopted the Siva worship, according to the writer, from the Greeks. Siva is the Indianised name for the Greek God Zeus. In the ancient land of Sumer the great mountain in it was called by Sumerians as Sumeru or Meru. It was also known by other names such as Surālaya (the home of gods), Hemadri (snow mountain) and Ratnasanu (Valley with precious stones). It may be noted here that among the Kassites, a tribe from the mountain area near Media, who reigned over Babylonia from about 1746 to 1180 B. C., appears the name Simalia, 'queen of the snow mountains'. When the Greeks came in contact with the ancient Sumero-Babylon culture either directly or through the Aegeans they adopted many of the worships of Sumerian Gods. But the Greeks made the gods to live on the top of their own mountain in Greece called Olympus and the chief among them was Zeus. Likewise, the Indians made a peak of Himalaya called Kailasa the seat of Siva. The very name Himalaya strongly reminds one the Simaliya of the Kassites and the Hemadri name of Sumeru. According to the Greek mythology from mount Olympus the gods used to come down occasionally to help or harm human beings.

In the words of Dio Chrysostom, who wrote during the second century A. D., the Zeus was "the giver of every good gift, the common father and saviour and guardian of mankind." The Greek story about Zeus depicting him with much fun as trying to hide his love affairs from his wife has found its expression in the Indian story of Ganga and Siva. In Hindu *Puranic* literature this Siva is identified with Rudra of the Vedic hymns.

Full-grown and in full armour, Pallas Athena, the Greek goddess, sprang from the head of Zeus. In the *Iliad* she is a fierce and ruthless war-goddess, but in later literatures she is warlike only to defend the country from the enemies. She

was worshipped as the goddess of the city, the saviour of civilized life and protector of handicrafts and agriculture. She is attributed to have invented the bridle and first tamed horses to be used by human beings. In Archæology the Greek goddess is represented with a lion. The Greek and Roman goddess Cybele was represented in the ancient Greek and Roman coins as standing upon a lion being attended by a male deity Attis.

The Indian worship of Kāli, who was born from the head of Siva as a goddess of War and protector of handicrafts riding over a lion is, I think, definitely of Greek inspiration. *Āyudha Pooja* signifies her role as a protector of handicrafts. And her name Durga (Fort) Devi recalls her role as a defender of the state from the enemies. In Greek mythology we have an interesting story to say that Theseus, the son of an Athenian king named Aegeus, had killed a terrible monster, with the body of a man and the head of a bull, named Minotaur born to Pasiphæ, the wife of Minos, King of Crete. In India we have got an analogus story, but here it is goddess Kāli who kills Buffalo-headed man, the terrible monster called *Mahishāsura*.

The Greeks were also likely to be responsible for the Hindu worship of Skanda who seems to be Indianised Apollo. Apollo is son of Zeus, a figure of beauty, the master musician who plays on his golden lyre, the lord of silver bow, the far-shooting Archer-god, the Healer, the God of Light and the God of Truth. Sometimes he is identified with the Sun-god. At Delphi he was mediator between the gods and men, guiding the latter to know the will of the gods. Perhaps it was due to this character, that Skanda came to be adored by the Indian astrologers. Most of the attributes of Apollo are found in Skanda. Even the name Skanda appears to have the character of a Greek name.

That the Siva worship was introduced into India by the Greeks is borne out by the early appearance of the image of

Siva on the coins along with Greek gods and with Greek legends. Besides Greek gods, Siva and Buddha are figured on the coins of the Saka King Maues or the Great King Moga who ruled the Indus Valley about 72 B. C. On the coins of Kadphises II, a Kushan King who ruled the territory from the Oxus to Mathura about A. D. 64, is represented Siva with battle-axe or trident and with or without a bull. Here it may be remembered that Siva, Kāli and Skanda are not Vedic deities.

On the coins of Kanishka occur the figures of Siva with two or four arms, and Buddha as seated in Indian style or standing clad in Greek fashion, besides the Zoroastrian, Greek and Mithraic deities. The coins of Vāsudeva, a Kushan king, who ruled the Mathura region and Oudh about A. D. 152-176 bear Siva and his emblem.

Aphrodite, also called Venus the ancient Greek Goddess of Love and Beauty who in the poems later to the Iliad is said to have sprung from the foam of the sea, seems to be Indianised under the name Laxmi. As Aphros means foam in Greek, her name was said to mean "the foam risen".

The Brahma worship of the Hinduism also seems to have derived from *Logos* of Stoic philosophy. The Logos is the divine fire as well as the divine reason which pervades the universe while it is immanent in everything. From this Logos arises everything and finally everything returns into it. Logos is also "the word or creative power of God" and "identical with fate".

The great Semitic philosopher Zeno who lived in 340-260 B. C. was a Phœnician who had come to Greece from the island of Cyprus and had opened his school of philosophy in a colonnade called the Poikile (painted porch) at Athens from which his philosophy derived the name Stoicism. Zeno, like his spiritual brother dreamers among the Hebrews in Judea, was inspired with the conviction that the God is one. God is air as well as ether. He is the spirit of ethereal fire. God

goes to and fro through all the substances. He is mind, soul and nature. Zeno identified Him with Zeus while the Hebrews called Him Jehovah. This philosophy stresses the need to be indifferent to pleasure and pain. Zeno dreamed of a great Polis where the individual citizens were bound together by love and so denounced slavery.

In the Upanishads this Logos is known as Brahma while in the later puranas and in some Vedic hymns the Brahma is deified as a personal god. Now let us compare some statements from Upanishads:

The Taittiriya Upanishad says, "That from which all these beings are born, and in which, being born, they live, and into which they all enter after dissolution seek to know That. That is Brahman." We read in Kena Upanishad: "That which cannot be expressed by speech, but which illumines speech, know that to be Brahman. That which cannot be conceived by mind, but by which mind thinks, know that to be Brahman. That which is not visible to the eye, but by which eye sees, know that to be Brahman." Again, the Maitri Upanishad states: "Verily in the beginning this word was Brahma."

In the Rig-Veda the word Brahma is also used to mean a sacred sentence or formula. The Brahma is identified with fire or heat (Agni), the generator of life, and is called in theRig-Veda as the 'father of the sacrifice.' The personified Brahma became the creator of the world and originator of the Vedas.

The parallels of Brahma are found in the Ahura Mazdha (Lord Wisdom) of Zoroaster, in the Tao (almost meaning Reason - propagated by Chwang-tzu between 332 and 295 B.C.) of China and God's Wisdom of Jewish speculations as well as the Logos of the Stoics, suggesting a common origin in ancient Mesopotamia.

"He who knows Siva hidden in all beings, like the subtle film that rises from out the clarified butter, alone enveloping everything—he who knows the god, is freed from all fetters."

This passage from Svetasvatara Upanishad reminds the identification of Zeus with Logos.

The Greek cosmogony too can be traced in the Upanishads. The following is a passage from the Brihadāranyaka Upanishad as translated by F. Max Muller: "Therefore a man who is lonely feels no delight. He wished for a second. He was so large as man and wife together. He then made this his self to fall into two and thence arose husband and wife. Therefore Yājnavalkya said: 'We two are thus (each of us) like half a shell.' Therefore the void which was there, is filled by the wife. He embraced her, and men were born."

The following is the story told by poet Aristophanes at a banquet held at the house of the Athenian poet Agathon where Socrates was the guest of honour: 'The Primeval man was originally the offspring of the moon which is made up of earth and sun and was round like his parents. He had four feet, four hands and two faces looking opposite ways. These strong terrible creatures attacked the gods. The gods could not kill them as their extinction would cease the sacrificial food to the gods upon which they had their substenance. So Zeus cut them into two to reduce their might and strength and by which the gods even profited by the increase in their numbers. Thus the male and female were split apart, but the two halves longed for reunion and this desire of the sexes is known as *love*.'

The above narration is from the works of Plato (Dialogues of Plato) who lived during the years from 427 to 347 B. C. From the comparison the one more information the writer gathers is that the puranic description of the people (Manava in Sanskrit) as originated from Manu (Moon) has its origin in this curious story of creation. Later this manu, meaning moon was confused with Manu, the supposed author of *Mānava Dharma Sastra*.

We read from Svetasvatara Upanishad: "The person, not larger than a thumb, dwelling within, always dwelling in the

heart of man, is perceived by the heart, the thought, the mind; they who know it become immortal." This description of the soul is also found in the writings of Plato. Aristotle, though a great scientist, has erroneously located intelligence in the heart.

Vidya or Jnana described in the Upanishads as representing that Knowledge which enables us to know Brahman, the Absolute beyond personality, form, name and attributes corresponds to the Gnosis of the Platonists and Neo-Platonists of Greece.

The Aitareya Brāhmana states: "The Heaven and Earth were once united together. When they went asunder, there was no rain nor sun shine. The five tribes could not agree with each other. Then the gods brought them together and thus took place the marriage between Heaven and Earth". Max Muller has pointed out that similar conceptions about wedding of the Heaven and Earth are found in Greek and Roman literatures.

Plato's simile of the charioterr and the horses has its parallel in the Katha Upanishad in which the body is compared with a chariot and the soul with the charioteer while the senses and the mind are compared with horses and reins respectively. The Brahmanda of Manu reminds us of the *World Egg* of the Orphic legend. The description of the Orphic legend about the formation of the Universe in the body of Zeus resembles the *Purusha Sukta* of the Rig-Veda. The spiritual worlds of the Gnostics remind us of the Bodhisattvas of the Mahāyāna Buddhists. Chandogya Upanishad states like Heraclitus (500 B. C.) that all things are derived from fire to which all endeavour to return.

The Greek influence upon Indian sculpture is widely recognised. The Hellenistic art was said to be modified by the Iranian trends with which it came into contact in its eastward expansion. This hybrid art is called Gāndhara art, its name being derived from the land of its birth. This

Gandhara art was developed about first century B. C. The art was employed to serve the Indian religions which when put into use absorbed some Indian standards. This Indianised Gandhara art found its expression in an ecletic art, fully represented in the Mathura school of art. The Gandhara art was introduced into India at first as a result of peaceful intercourse between the Mauryan Empire and Western Asia and subsequently by the invasions of the Bactrian Greeks, Scythians, Parthians and Kushans.

The Hellenistic elements are manifest in a variety of motifs found in India such as Atlantes, fantastic creatures and griffins. Probably Greeks introduced the vine, the acanthus, the frieze of garland bearers and fabulous creatures such as the Triton and marine horse, the representations of which are found in common in countries of Western Asia. The little Amoroni, a child stretching for a branch of grapes, Haeman begging his father for the life of his bride and an ivory pendant ornamented with two-bearded heads represented on the ceramic wares from the neighbourhood of Peshwar are Hellenistic both in design and execution. The vine-wreathed head of Dionysus in silver repousse found from Taxila also shows designs exclusively Greek in sentiment. The gems from the region, too, exhibit the Hellenistic execution.

During the first century A. D. images of Buddha appear in the Hellenistic art of Gandhara. The sculptor at Gandhara apparently made an apollo into a Buddha. Amongst the earliest of the Gandharan Buddha images, we find, Sākyamuni with the head of the Greek Apollo, similar to the Roman statues of the Augustan period. The sculptors responsible for this school adopted the European technical and iconographical methods to fulfil the requirements of their Buddhist Kushan employees. As the Buddha image of Gandhara school has been taken to be earlier so far as extant remains are concerned, some schools have deduced Greek origin for the Buddha image.

In the second century A. D. occur Buddha images in the art of Mathura school. The Hellenistic elements apparent in the art of this school are the plasticity and the treatment of the drapery. Some amplitude of facial curves, curving eyebrows, drooping eyelids and fuller cheeks are said to be characteristic of the Mathura school. The *usina*, the *mudra* and the *āsana* are considered to be the attributes of the school. Buddha is represented by symbols in the early Buddhist art of Bharhut, Sanchi, Bodh Gaya and Amaravati, suggesting perhaps the disinclination of the people to represent him in the anthromorphic shape.

One bas-relief from Bharhut Tope illustrates, on one picture, several scenes from Banyan-deer Jataka: in the background, three deer standing before the shot, two running away and one looking back in fear while another lying fallen on the ground; in the foreground, to the left one deer lying with its head on a block, the king of the deer marked by his antlers standing in the centre of the foreground near the block exhorting the king of the men and a cook standing beside him. This device of putting several scenes of a story on one plate was employed by the ancient Greeks and was common in Europe after the dark ages.

Having noted the Greek inspiration of Buddha images, it will be opportune here to have a peep into the world history of the production of images and their ritual usages. About 20,000 years ago in the Upper Palæolithic period, modern men are said to appear better equipped than any group in lower or middle Palæolithic times forming several social groups with different cultures of which the Gravettian of the north Pontic zone was one. The Gravettians seem to have grasped the generative function of woman and so they used to carve small figures of women out of stone or mammoth ivory, or model them in clay and ash to be used in some sort of fertility ritual to promote the multiplication of game. These figurines

are usually hideous, most having no faces while the sexual characters are always emphasised.

Between 7000 and 3000 B. C. the neolithic barbarian societies in Syria, Iran, Egypt, in Mediterranean countries, in south-eastern Europe and rarely in England figurines of female were carved in stone or bone or were moulded in clay. These female figurines are generally taken for the images of the *Mother Goddess.* The neolithic man thought that the earth has the nature of a woman in as much as the grain sprouts from its bosom and so she could be influenced like a woman by prayers and sacrifices. Childe says that such figurines were the direct ancesstresses of images of goddesses produced by historical communities in Mesopotamia, Syria and Greece. But we find in England, the Balkans and Anatolia the male partner in fertilization always represented by phalli carved in stone or moulded in clay.

About 2500 B. C. the Bronze Age Craftsmen of the Indus Valley produced small clay figures of woman, and ritual objects such as large stone lingas and yonis (phalli and vulvæ) which give glimpses of totemic survivals and of magic fertility rites and probably personal deities originating out of them.

In the third millennium B. C. the Egyptian sculptor carved the statue of the deceased in the hardest and most durable stone which was believed to contribute magically to his immortality. But his Sumerian colleague carved statues expressing the divine presence in human form.

About 700 B. C. the Greeks began to copy the models of the art of the Western Asia and soon later broke away from the old conventions by beginning to produce the statues of dead relatives or of warriors and athletes in a naturalistic manner. The gymnastic contests of which the ancient Greeks were fond gave the Greek sculptor the opportunities of seeing the naked human body which accounts for the naturality in Greek art and their nude figures.

About the year 1953 the American archæologist, Professor Osker Broneer, discovered the ancient temple of Neptune at Isthmia, near the Corinth canal, which, tradition has it, was "the most beautiful" of all temples to this god. Another find was a big headless statue of a woman—probably the goddess of death, Persephone. The foundations of the temple of neptune were found to be 61 by 27 yards which make the temple one of the largest temples in ancient Greece. Professor Broneer has estimated the foundations uncovered to date back to the fifth century B. C.

In the year 1953 the Italian archæologists also discovered an exquisite pre-historic Greek statue of a goddess in the ruins of the Roman resort of Bair, near Naples. Prof. Amedeo Mairui suggested that the statue was in the severe style of the fifth century B. C. and it was the statue of the Goddess Sosandra, described by the Roman writer Lucian in the second century, as Araddo. The marble figure, slightly larger than life-size, is of a young woman fully mantled in a large piece of cloth which falls from her head to feet sweeping round her shoulders.

A comparative study of ancient Indian jewellery reveals further traces of strong Greek influences. An object, probably used as a pendant, discovered at Taxila has Psyche and Eros in *repousse* standing together embracing each other. This gold relief is backed with plain gold sheeting which was soldered at the edges while to the back are fixed three small rings for attachment. Psyche and Eros were winged in earlier representations. The sea-lion, acanthus and pyramid inspired by the Greeks became a part of ancient Indian art though they were blended with traditional lotus and crescent.

The Greeks (or Yavanas as they were called in India) who settled in India gradually became assimilated with Indian community. Some of them embraced Buddhism while others embraced Brahminism. They bore thoroughly Indian family names such a Simhadaya, Yasavardhana and Dhammadhaya.

Similarly the word Devadatta seems to be the Indianised name for Diodotus. The Greek epithet *dotus* is Indianised as *datta*.

The numerous instances of similarities found between the mythologies and philosophies of India and Greece when considered together with the arrival of ancient Greeks in India lead one to the conclusion that one of the countries is indebted to the other. Who borrowed is the question here to be decided. It is suggested that Alexander when he invaded India had met some Indian saints dwelling in a forest near Taxila from whom the Greeks had the Indian philosophy and mythology carried home. The story of Alexander's contact with Indian naked ascetics as told by the historian Arrian was described by Laurence Binyon. Apart from the probability of the story being invented at a much later time, the suggestion itself is wide of the mark as the contents subjected by the above discussed similarities are found in the Greek literature written long before the expedition of Alexander. Some argue that when the Persians invaded Greece in 490 with an army in which was included Indian chariotry, there was an opportunity for Indian contacts with Greeks. But the Greek Natural Philosophers such as Thales (C. 625-540 B. C.), Anaximander of Miletus (C. 600-530 B. C.), Pythagoras of Samos (C. 530 B. C.) and Herakleitos of Ephesus (C. 550-475 B. C.) lived before the date when the Indian chariotry fought for Darius, let alone the competency of the chariotry to teach philosophy. Really the Greek philosophers built their philosophies on the basis of the knowledge they derived from the Babylonian and Egyptian science. Thales, a half Phoenician, and Pythagoras are reputed to have studied geometry from Egyptian architects. These geometers, however, generalized the truths already known to their predecessors in Western Asia and Egypt.

We have also the hypothesis that the Greek teachers like Plato visited India for study or the Indian Brahmins visited

Greece before the campaign of Alexander, which has for its basis only a bold speculation. But we cannot build history on mere speculation. The hypothesis had the approval of some earlier historians who genuinely believed in the existence of the Upanishads before Gotama. Now the responsible Indian historians have admitted that the Smritis of Narada and Yajnavalkya were written down during the early centuries of Christian era. But the Upanishads were written down round the very sages, implying that the Upanishads were also written down in the early centuries of the Christian era. There is no proof to show that the Upanishads existed before Alexander except some legendary statements which cannot be taken for history. If the Greek influence is seen in the Indian drama, astronomy and sculpture, as is admitted by the modern scholars, it will be only a wonder if their influence is not found only in regard to mythology and philosophy. In the literary world of Sanskrit it is a well-known fact that the teachers of the Upanishads were Kshatriyas while those of the Vedic hymns were Brahmins. We can rightly believe that the Yavanas were incorporated into Hindu community as Kshatriyas. This coincidence only confirms the Greek inspiration of the Upanishads. The identification of Siva with Brahma in the Upanishads (Svetasvatara) is another pointer to the Greek connection of the Upanishads. We also know that the founder of Sceptic philosophy, Pyrrho, who lived till about 275 B. C., was in the army of Alexander which invaded India.

The conversion of the Greek King Menander and his men gave a great impetus to the growth of Buddhism and its legends. They conferred the attributes of *Buddha* (Logos) upon Gotama to become *Manusha Buddha* (Man Buddha). The divine Buddha practically became the God-Almighty of the Buddhists. In imitation of their seven sages the Greeks made seven Buddhas. They made images of Buddha for worship. They wrote Jataka stories in prose by transmuting

the Aesop fables to describe the Buddhist ethics. It is significant that there is not a word about Buddha or Buddhism in the whole of the numerous Asoka Edicts. The Orphic thought of salvation as the liberation of soul from the body seems to have influenced the salvation idea of the Buddhists.

The teaching of Gotama was certainly transmuted by the Yavanas in the light of their own philosophies and to explain them they wrote philosophical discourses in the manner of their sages or teachers at Greece who held their philosophical discourses like Plato (427 to 347 B.C.) in the grove of the Academy. These philosophical discourses claimed to be made by Buddha at the *chambaka*, *jetavana* and *bamboo* groves are called in the Buddhist literature as *Suttantas* (the ends of the Suttas). In the Sanskrit literature the Philosophical discourse is known as *āranyakam* (of the grove), its meaning being derived, I think, from the academy of grove. The word āranyakam with the above meaning is preserved in the Vedic literature.

The famous Siva-Kāma story also seems, to me, to be Greek inspired. Here the god Siva becomes an ascetic and spends his days in meditation. A handsome maid named Parvathi comes to the aid of the ascetic. Her beauty was so marvellous that even the great god sage was tempted to wed her. The incident was beautifully symbolized in the story to say that on one fine day at the approach of Parvathi before Siva, Kāma, the god of Love, appeared before Siva and shot his unresistible arrow at Siva. At the sudden interruption Siva got wild and no sooner his third eye was wide open than Kāma was reduced to ashes. This is certainly the story of Psyche with her surpassing beauty and Cupid, the god of Love against whose arrows there is no defence, changed to suit the Indian environment.

The same story with a little difference has found its place in the Buddha legends also. But here the purpose was to exalt the Buddha and so the story tells that Mara, the god of

passion, failed to interrupt the meditation of Gotama. After this Buddha is known as Mara-jil–the conqueror of the god of passion. Again the same story is repeated, with also a little change, in Zoroastrian legends in which the evil spirit fails to influence the meditation of Zoroaster. The Zoroastrian story can be reasonably supposed to imitate the Indian story. But the question about the anteriority between the two Indian stories is difficult to answer. Still, the Siva—Kāma story seems to be natural and hence its claim for anteriority is strong.

Chapter VI

THE EARLY CLASSICAL AGE

The Sunga Rulers

After the death of the Greco-Bactrian King Menander, Sunga rulers of Vidisā became powerful under Pushyamitra and established suzerainty over a large territory from the Punjab to Magadha or perhaps even to Pataliputra. They are said to have begun as feudatories of the Mauryan rulers at Vidisā, the modern Besnagar, about 120 miles eastwards from Ujjain. Kausāmbi (on the Jumna), Mathurā and Ahicchatra Kings, who are found represented by coins and inscriptions, were made their feudatories.

Pushyamitra is generally held to have ruled for 36 years beginning from 184 B. C. This date contradicts the historical knowledge that from 190 to 175 B. C. the invincible Demetrius, a Greco-Bactrian king, was the undisputed master of almost all the territory between the Oxus and Pataliputra. After 175 B. C. when he died Menander and Apollodotus divided the empire among themselves and Menander ruled the eastern portion of the Greek empire from his capital Sagala till he died within few years after 150 B. C. As the Greek history is more reliable and the date of Pushyamitra is deduced from legends like *puranas* we can reasonably assume that Pushyamitra's rule began about 160 B. C. and became powerful after the death of Menander.

The Three Vedas

Now we shall come to the Brahminic literature. As Asoka was the great patroniser of Buddhism Pushyamitra Sunga was a great patroniser of Brahminism. The Sunga

rulers seem to be of Iranian origin which is indicated by the suffix *mitra* to their names. A short inscription in Sanskrit discovered from Ayodhyā states two *asvamedhas* (horse sacrifices) offered by Senapati Pushyamitra and a kindred of the former. The sacrifice is mentioned by Patanjali also. To the Sunga sacrifice (about 140 B. C.) must have come various priests from different parts of the country to chant hymns and give technical help in performing the sacrifice. Vaisampāyana, a great priest and scholar, seems to have, I suppose, utilised the opportunity or some other similar opportunity to prepare a text of hymns chanted and the techniques employed and preserved it for posterity. This text was called *Yajumsi* or liturgy and later as *Yajur-Veda*, the knowledge of sacrifice. The Yajur-Veda derived its name from the root yaj meaning, to sacrifice. In the puranas Vaisampayana is mentioned as the teacher of Yajur-Veda.

Yajur-Veda contains formulæ to be recited by the priest while performing benedictions. It gives several names of sacrifices and describes their characteristics. A sort of composition called *Samhita* predominates in the Yajur-Veda. It is not either metrically shaped lines or sentence—like formations. Lines of metrical shape which in ordinary parlance may be equated to a verse are also found in the work. The hymns or mantras referred to by other Vedas are found in it clearly. Another name to signify the work is *Sāstra*.

Probably about the same time the hymns chanted during the Soma-sacrifice was collected and reduced to writing in one volume and was originally called *Sāmāni* or melodies. This liturgical collection is later known as *Sāma-Veda*. Here the hymns are chanted in a melodic tune. Another designation of the work is *Stotra*. The Sāma-Veda contains about 1,800 verses to be recited at the Soma sacrifice at which the juice of the soma plant, mixed with barley or milk, was offered. According to one author Sāma-Veda has 1549 verses.

The Soma sacrifice is in praise of the deified soma sap. The remarks of Whitney will be interesting here to note: "The simple-minded Aryan people, whose whole religion was a worship of the wonderful powers and phenomena of nature, had no sooner perceived that this liquid had power to elevate the spirits and produce a temporary frenzy, under the influence of which the individual was prompted to, and capable of deeds beyond his natural powers, than they found in it something divine; it was to their apprehension a god, endowing those into whom it entered with godlike powers; the plant which afforded it became to them the king of plants......Soma is addressed in the highest strains of adulation and veneration; all powers belong to him; all blessings are besought of him, as his to bestow, etc."

It has been suggested that the Indo-Iranians took over the *Soma* cult from some pre-Aryan people of Iran. The ancient Greeks had the cult of Bacchus or Dionysus, the Wine god, said to be imported from barbarian people of Thrace. By 3000 B. C. beer was confirmed by Sumerians as the apt drink to stimulate their deities to potent beneficence. One of the great festivals of the ancient Hittites of the second millennium B. C. was that of the *andahsum* plant in honour of a number of gods. In the festival the important part consisted in sacrifices and libations to several gods and goddesses with many different kinds of food including the above-mentioned andahsum plant..

Atharva-Veda containing allusions to *Sati* must have been compiled after the Scythian advents. It is a collection of hymns used as magical spells and incantations for imprecating or averting evils. It is based on a superstitious belief in the power of evil demons. It is compiled (C. 70 B.C.) by a great priest named Angiras and hence it is originally called the *atharvāngirasah*, meaning the work of priest Angiras. In the ancient Iranian language the word Atharvan means priest. In the nature of literary composition the Atharva-Veda

resembles the Yajur-Veda. The Atharva-Veda contains 731 Suktas (a Sukta has several *Richas* or verses and resembles a sonnet) or 6000 verses.

Here it will be interesting to read a passage from 'A History of Science And Its Relations With Philosophy And Religion': "Modern study of primitive peoples shows that magic usually begins in its "sympathetic" form, whereby men try to obtain control over nature by mimic copying of the process they wish to bring about, or by acting a drama in which it is represented. When frogs croak it rains. The savage feels he can do that too; so he dresses as a frog and croaks to bring the wished-for rain. Hence arise ritual and mystery cults, prior to the dogma or mythology afterwads invented to explain them. For at a later stage, when rite and ritual have to be accounted for, the powers of nature are thought to be animate, and long-established magic rites, unchanged or perhaps modified, take the form of propitiatory ceremonies."

This later sort of magic is found to have been reached in the ancient land of Sumer before 3000 B.C. We shall see an interesting passage from 'What Happened In History', also: "It is an accepted principle of magic among modern barbarians as among the literate peoples of antiquity that the name of a thing is mystically equivalent to the thing itself; in Sumerian mythology the gods *create* a thing when they pronounce its name. Hence to the magician to know a thing's name is to have power over it, is—in other words—'to know its nature'."

In the second millennium B.C. a peasant population of Anatolia called Hittites used magic to banish barrenness of crops, ghosts and strife in the house, to drive away disease or to restore disabled bodily functions, to imprecate enemies or to bring good luck to friends, and to attract the inattentive persons or gods. Black magic was held to be a crime similar to assault and battery. A Hittite patient stops his ears with black wool and puts on black clothes. After various rites an

old woman says: 'I take away from the person the darkness and stiffness and the sin' and tears the black clothe put on the person from top to bottom and removes it together with the black wool put in the ears. Afterwards, the clothes and other things in contact with the patient were thrown away into the river. The above is a ritual for restoring sexual functions to a person.

The Persian Magi were famous diviners and sorcerers, astrologers, interpreters of dreams and magicians. The word *magic* has its origin in their name.

The *yajumsi*, *sāmāni* and *atharvāngirasah* were familiarly spoken of as the *Trayī* (the three) or *Trayi-vidya* by the ancient people. That the Rig-Veda is, contrary to the modern belief, a later composition will be dealt with later. The above three vedas are compiled probably during or soon after the reign of the Senapati Pushyamitra Sunga, a great supporter of Brahminism. Without the practical experience of more than one sacrifice the Yajur-Veda could not be compiled. The sacrifice, which remained temporarily in abeyance on account of the edict of Asoka prohibiting beast sacrifice, began to be performed again by the time, for which Pushyamitra seems to have given a lead.

The Dharma-Sutra of Vasishtha

About the third or second century B.C. Brahmin priests seem to have reduced to writing the laws prevailing then in the country with special reference to Vedic rites, which are known as the Dharma Sutras. Megasthenes (302 B.C.) had complained that the Indians did not know letters, that their laws were not written, and that they administered justice from memory. But the admiral of Alexander who sailed down the Indus in the year 325 B. C. had remarked that 'the Indians wrote letters on cotton that had been well beaten together'. The admiral might have referred to commercial documents while Megasthenes might have meant to allude to written

literature. Nevertheless, whatever he might have meant by the knowledge of letters—and we do not know whether Megasthenes is quoted correctly—his mention about the laws in India is clear and definite. So we can reasonably assume that the Indian laws were written by the influence of Greek kings who were in need of a written document to administer justice in the light of local laws. Gautama is considered by scholars as the earliest of the law-givers whose works have been preserved. His name represents Sanskritised form of the name Gotama, the well-known name of Gotama the Buddha. However, to the writer, the Dharma Sutra of Vasishtha seems to be earlier.

The extant law book in verses known as Vasishtha Dharma Sutra seems to be a later versification by an unknown scholar. Now the original work is lost. Later commentators claimed the author of the extant Sutra to be the sage Vasishtha of the Rig-Veda and the Sutra to be the most ancient and authoritative of all codes. This claim has been discarded by European scholars on linguistic grounds. But the explanation given above solves the problem. The striking affinity of his dictum ascribing impurity to women at certain periods with the similar custom found in the Zoroastrian scriptures of Iran indicates the relative closeness of his time with that of the Achæmenids of Iran. And the fact that he enumerates a lesser number of marriages, uses the word Kshatriya for Rākshasa, does not mention Sati and the fact that his laws are closer to the old Vedic order, seem to be in favour of accepting the earlier view. The original work, now lost, was probably written in about 150 B. C. From the extant work it is difficult to determine what exactly the original work contained since new ideas and laws might have probably been added by the composer of the extant work.

Vasishtha enumerates six kinds of marriage rites and elucidates them as follows: If a father gives his daughter in marriage to a suitor with the rite of pouring out a libation

of water, that is called the Brahma-rite. If a girl is wedded to a priest who is conducting a sacrificial rite, that is known as the Daiva-rite. If the daughter is given in marriage after receiving a cow and a bull by her father, then the rite is called Ārsha-rite. The Gandharva-rite is one in which a lover weds a girl of equal caste. The Kshatra-rite is one in which the bridegroom abducts a damsel after conquering her relatives by the strength of arms. The wedding of a damsel purchased for money by the bridegroom is classified under Mānusha-rite.

Vasishtha permits a man after the end of his studies to wed a woman of his own caste who is not related to him within six generations on the father's side and four generations on the mother's side. He allows a Brahmana to wed three wives, a Kshatriya two and a Vaisya one. And according to some teachers, he adds, the twice-born man could wed a *Sudra* woman without the recitation of Vedic hymns. But, he warns that such a marriage would degrade his family and lose him heaven after his death. As in the old Vedic order, Vasishtha allows the only daughter the right of a son. He even recognises the son of an unmarried woman as heir to the property of his grandfather provided he is begotten by a man of his caste. Such a son is allowed to offer the funeral cake to his departed grandfather. Moreover, a male child though born secretly is deemed fit to inherit the property. Vasishtha allows Niyoga and the son of a widow is considered by him to belong to the both later and former husbands. But a widow before getting remarried should abstain from pungent condiments, and sleep on the ground, for six months.

There had been a custom among the ancient Isrelites and other tribes called Levirate in which a widow without a child could wed her brother-in-law. The first male offspring of this Leviratical wedding was considered as the child of the deceased. The same custom was in vogue among the ancient Iranians. The above custom was also prevalent among the

ancient Indians under the name Niyoga. It is to this custom that Vasishtha refers.

He advises a father to see that his daughter is married while she still runs named as he will commit sin if she happens to remain in his house after she attained her marriageable age.

Vasishtha gives a story to illustrate the origin of impurity attributed to women at certain periods. This has a parallel in Zoroastrian scriptures in which the impurity of a woman is told due to her being under the influence of a demon consequent to which she is to remain apart from the household till she is free from the influence of the demon. It is considered to be a sin for such a woman possessed by this fiend to touch fire or water and converse with a righteous man. The Zoroastrian scriptures consider cloth touched by such a woman as polluted. The custom based on such a notion is still in vogue in several parts of India particularly in the Southern part.

Vasishtha says that a woman is not independent and the men are her masters. Vasishtha is said to belong to the Rig-Vedic school. Historically, it can be also said, that the Rig-Vedic tradition much depended upon Vasishtha.

Now we shall discuss the history of the origin of the family system ordained by Vasishtha in the light of the researches of Lewis H. Morgan. According to Morgan the paternal power arose when the property began to be produced in masses and the desire of the owner for its transmission to his children had changed inheritance from the female line to the male. Monogamy is an improvement upon the syndyasmian family and it appears in a definite form during the period of the Upper Status of barbarism (from the invention of smelting iron ore, with the use of iron tools) and continued to the period of civilization (from the invention of phonetic alphabet, with the use of writing).

The terms for father, mother, brother, sister, son, daughter and a term applied indiscriminately to nephew,

grandson and cousin are the only words for relationships common to the several Aryan dialects. Morgan says that the early Aryans could never have attained to the advanced condition implied by monogamy with such a scanty nomenclature of blood relationships. But with a previous system, analogous to the Turanian, this impoverishment can be explained.

The Turanian or Ganowanian system of consanguinity was emerged out of the *punaluan* family system. The system of relationships of the Seneca Iroquois is taken as typical of the system among the Ganowanian tribes of America and that of Tamil speaking people of South India among the Turanian tribes of Asia. Morgan gives a table of two hundred relationships in Tamil and Seneca-Iroquois languages showing that the system of consanguinity of the Seneca-Iroquois, of New York, and that of the Tamil people of South India are still identical through those two hundred relationships. The relationships of nephew and niece, aunt and uncle, and male and female cousins are some of the characteristics of the system. The Turanian system also underlies the Chinese.

The Homeric poems tend to show that the family system among the ancient Grecians has quite as many syndyasmian as monogamian characteristics and whatever of monogamy existed among them, was through an enforced constraint upon wives while in a majority of cases their husbands were not monogamists. To attain a knowledge of the paternity of children at the requisite degree of certainty the Greeks seem to have followed a system of female restraint and confinement. But in the Roman family the influence and authority of the wife was greater. She went into the streets freely and visited with the men the theaters and festive banquets without restraint on the part of her husband. However, the ancient Roman did not treat his wife as his equal and imposed penalties on her.

Vasishtha generally ordains monogamy; but he allows a Brahmana to wed three wives and a Kshatriya two. In the Rig-Veda times too monogamy was the prevailing order of society. The term for a consanguine relative used in the Hindu Dharma Sutras is *Sapinda* and *gotra* for that of gens. A person who has one *Pinda* (funeral cake) in common is explained as a Sapinda. One can marry only a girl not belonging to his gotra and who is not a sapinda within five generations on mother's side and seven generations on father's side. This is at least what Gautama had declared.

The gens in its archaic form were found among the Australian aborigins in the nineteenth century A. D. which had the descent in the female line and the prohibition of marriage between sisters and brothers as two of its fundamental rules. An archaic gens consisted of sisters with their children and descendants through females. The gens first appeared in the midst of the punaluan family group as "the organization into gentes had a natural origin in the punaluan family, where a group of sisters married to each other's husbands furnished, with their children and descendants in the female line, the exact circumscription as well as the body of a gens in its archaic form."

The patriarchal family of the Semitic tribes, belonging to the Later Period of barbarism, is an organization of a number of persons, bond and free, into a family, under paternal power. The family of the ancient people of Rome under paternal power (*patria potestas*) was precisely based on the above system. The same characteristics, though in a less degree, dominated in the family of the ancient tribes of Greece. The Dharma Sutras do not allude to such a system of family. But the family of Daksha Prajapati and that of Karddama Prajapati (head of family?) etc. mentioned in the Puranas seem to resemble a patriarchal family.

The Advent of Scythians

Before 1000 B.C. a nomadic tribe, who are a kindred people to the Indo-Europeans, breeding horses for milking and riding alike, spread over the steppes of Eurasia. These formidable fighting barbarians caused trouble to the Chou state in China, harassed Asia Minor and even worried Assyria. In the ancient land of Scythia' the region north of the Black Sea, nomads called Scyths conquered a Bronze Age peasantry and founded feudal kingdoms. The Scythian rulers collected a large quantity of grain and other farm produce from their subjects with which they supported blaksmiths, armourers, goldsmiths, and other craftsmen. They obtained forest products from beyond the steppes, bought gold from Transylvania and Altai and purchased Greek wines and articles from the colonies on the coasts of Black Sea. This swiftly moving nomads called Scythians or Turanians must have had an important role in diffusing ideas between the West and the Far East. They are credited with for employing originally large number of trained horses for fighting. Probably from them the Assyrians and the Europeans learned the military importance of cavalry. They seem to have introduced trousers to the Celts. It was the Scythians, it is said, who invented the tailoring and costume of trousers which was necessitated for a convenient riding on horses.

In about the sixth century B.C. the great Persian Empire (Aryan Empire) had to face a serious trouble from these Scythians who attacked and plundered the borders. To put an end to this trouble Darius I in the year about 500 B.C. led a great army across the Bosphorus, pushed through Bulgaria, crossed the Danube river by a bridge of boats and marched to Scythia in South Russia, the native country of the Scythians. The army of Darius comprising largely of an infantry force suffered heavily at the hands of the Scythians. The mounted Scythians cut off the supplies to the Persian army and

destroyed any stragglers by riding all-round the army while they never engaged in a pitched fight. Darius had to retreat without success.

The ancient Greek state of Athens employed a corps of barbarian archers, drawn from the Scythian tribesmen of the north who were clad in their native trousers and high-peaked, tight fitting caps. These Scythians who were entrusted with the preservation of order at Athens lived in tents near the Acropolis or citadel. In the later half of first millennium B. C. the Scythians in South Russia had come under the influence of colonial Greek civilization which was reinforced by the civilization of Hellenic Bactria on their kinsmen further east.

About 150 B. C. the Scythians replaced the Seleucid monarchy in Parthia, in Persia, by a dynasty called Arsacid. The Scythians also took Bactria almost at the same time.

As Iran began to get arid the Partho-Scythians must have felt that the country could not support such a large population and so they wanted to expand further and consequently they led almost a migratory expedition to India about which they had known. For the purpose they recruited men for their army largely from the central Iran, chiefly from among the descendants of ancient Elamites. About 100 B. C. they marched through Baluchistan, crossed the Brahui mountains through the Bolan Pass and pushed through Sind, Gujerat and Western India until they reached the Mysore plateaux from where they dispersed their army. The above march of the people from Iran is borne out historically and archæologically.

From the sudden appearance of iron along with megalithic structures in Southern India at the close of the first millennium B. C. without the evidence of the usual intermediary civilization of copper or bronze-age, generally found elsewhere, the historians have detected the startling fact that in South India the transition from neolithic village life to that of iron-using megalithic builders was sudden. This neolithic culture of South India is said to be that of the Proto-Dravidians. The

excavations at Brahmagiri show the persistence of a purely neolithic village culture up to the later half of the first millennium B. C. And some scholars have stated that the appearance of iron and megalithic buildings was only after this date and have identified the iron using megalithic builders with the early Dravidians.

The archæological evidence is explained in a paper on 'New Aspects of the Dravidian Problems' read by Dr. Furer-Haimendorf of the Royal Anthropological Institute, London, at the IV Session of the International Congress for Anthropology and Ethnology held in Vienna in the year 1952. Basing on the recent archæological finds from the State of Mysore, he postulated that the Dravidians from Central Iran travelled by land through Baluchistan and along India's West Coast until they reached the Mysore Plateau in about 300 B. C. He also indicated that these Dravidians brought the Iron Age culture to southern India. The hypothesis was supported by Prof. Childe while Dr. K. V. Ramaswamy pleaded caution as according to him *Tholkāppiyam* and *Thirukkural*, demonstrating a high level of civilization and literary development, belonged to the pre-Christian era. Prof. Heine-Geldern, who presided, said that the claim of the Tamil scholars was exaggerated and that he was inclined to agree with Dr. Furer-Haimendorf.

Prof. K. A. Nilakanta Sastri, an eminent South Indian historian, has suggested to the Samgham phase the period A. D. 100-300 and the Tolkappiyam is best placed by him towards the close of the age. The Thirukkural is suggested by Sastri to date A. D. 450-500. So Heine-Geldern was quite right when he remarked that the claim of the Tamil scholars was exaggerated.

The dominant ethnic type among the speakers of Dravidian tongues of South to-day is the proto-Mediterranean. Dark brown hair, nose of medium size and narrow head are the main characteristics of the type. The proto-Mediterranean

element is furnished in the iron-age cairns of the Deccan and at Ādichanallūr. A short-headed element consisting of two main types, the Alpine and the Armenoid is now found traceable in Western and Southern India. The Alpine type is found prevailing in Gujarat, Mahārāshtra, Coorg and Karnataka while the Armenoid type is found especially among the Tamil-speaking people. These ethnic types are also found in the Middle East, especially in Iran. Caldwell has pointed out a connexion between the Dravidian and Susian languages as regards structure.

The isolated Brahui language in Baluchistan is a clearer survival left by the early Dravidian language. One scholar has indicated a connexion between Elamite and Brahui languages. The Dravidian language is found to have striking affinities with the Hurrian language of the ancient Anatolia and the Kassite language of Western Iran. Many names of ancient places in Mesopotamia, the highlands of Iran, and Afghanistan have been pointed out as being very similar to those of Dravidian forms.

The family system of inheritance through women was in vogue among the Elamites and the system still survives in Dravidian India. Baudhāyana, an ancient law-giver, in his Dharma Sutra mentions the marriage of a man with the daughter of his maternal uncle or of his paternal aunt as among the customs peculiar to the people of the South. The matrilineal order now survives, though crumbling slowly, among the Malayalees and Tulus in the West Coast who belong to the Dravidian race. For the present it will suffice to say that originally all the Dravidians in South India had the matrilineal civilization like the Elamites in Iran.

In an article published by John Gunther in 1953 the matrilineal family system is said to exist among the Toreggs, a negroid nomad tribe, found at Tamentasset in the middle of the Sahara desert. The children of an ordinary man born to a noble woman become nobles whereas the children of a noble

man born to an ordinary woman do not become nobles among them.

A South Indian who had gone to Somaliland in Africa had pointed out recently that the people of Somaliland are similar to the South Indians in physical appearance. The Somaliland people may be kindred to the Elamites.

Even in the ancient times the method of disposing the dead among the Dravidians was burial. This custom also connects the Dravidian people with the Elamites. The practice of burning of the dead found among some sections of the Dravidians was consequent to the influence of the Aryans.

The Khasis of Assam (who were effected a change in the physical features by Mongoloids) who speak to a tongue related to the Mon-khmer group belonging to the Austro-Asiatic branch of the Austric family follow the matriarchal system. The dark complexed Pnars or Jaintias (also called Syntengs), who inhabit the Jaintia Hills and speak a dialectical variation of Khasi language and who probably constitute a link between the Mundas and the Khasis, followed the matrilineal social system more rigorously than the Khasis. According to Jean Przyluski the Austric linguistic zone extends from Western Asia in the west to Eastern Isl and off the coast of South America in the east. He has pointed out that the Sumerian speech of Chaldea is related to the primitive Austric. The wearing of same sort of necklaces and other similarities observed between the Khasis and the Chaldean Syro-Malabar-Christian community are attributed to the above fact.

The Elamites of southern Persia, it is said, where a more negroid people. They may be related to the Chaldeans. But here it may be remembered that Kenneth Oakley holds that the other ethnic groups including Europeans evolved out of the early Negritos. Probably the matriarchal system was originated, I think, before the differentiation of Semitic, Nordic and Mongoloid types. The patriarchal system originated in

Western Asia was not adopted by some tribes either due to their conservatism or isolation.

Kujala Kara Kadphises of the Kushānas who ruled about A. D. 40 and who has been designated Kadphises I by historians bore such imperial titles as *Mahanta*, *Mahārāja*, *Mahārājādhirāja* and *Satyadharmasthita*. The title Maharajadiraja implies *adirajas* under the imperial ruler. The Chera monarch Nedunjēral Ādan (C. A. D. 150) is said to have reached the superior rank of an adhirajar. Kongani Varma (C. A. D. 400) of Gangas whose kingdom formed the southern part of the modern Mysore, had the title Dharma Mahādhirāja.

Evidently, it seems probable that the Partho-Scythian rulers after their conquest of some parts of India as described earlier employed under them many Viceroys under the name adhirajas to rule different parts of the empire while they themselves took the imperial title Maharajadhiraja. In later Persia the term was known as Shahan Sha (King of Kings). The institution of Achæmenid Kshatrapāvan (meaning protector of the realm, a term applied to the Persian governors of provinces) was continued in some parts of India probably other than South India, as during the rule of the Seleucids and the Indo-Greeks, is evidenced from the existence of the Western Satraps under the Sakas and Kushanas.

The Partho-Scythians or Sakas (also known as Sse), the Pahlavas and the Kushanas (said to be related to Tocharians and Turushkas) seem to be closely inter-related and so they can be suggested to belong to the Scythian group of people. The close relation between the Pahlavas of Iran and Sakas is apparent from the names and affiliations of Vonones and his successors in Eastern Iran and Arachosia. Philologists have included the Tocharian language in the Indo-European group of languages. Possibly the Tocharian may be a Greco-Scythian language developed by the intermingling of the Scythian population and the Greek colonists. Though the language spoken by the Scythians is not extant, their

language seems very probable to be akin to the Indo-European language. During the Achæmenid Empire the Scythians might have made contact with the ancient Persian which was the administrative language of the Empire. When the Scythians conquered Iran and the neighbouring countries from the Greeks they might have found it easy to adopt for themselves the ancient Persian as their administrative language. But in India they found it convenient to adopt the Prakrit language, which is also very akin to the ancient Persian, as the administrative language in India.

A name of a Saka ruler who ruled the Punjab about A. D. 19-45 was Vindapharna (Gondopharnes in Greek) meaning Winner of Glory in Persian. The full Kharoshthī legend on the coins of Kadphises II of the Kushanas reads as follows: *Maharajasa rajadirajasa Sarvaloga-isvarasa mahisvarasa Vima Kathphisasa tradara.* The last word means saviour. A descendant of Aji Saka (C. A. D. 79) of Indonesia was styled as Rajadhiraja.

The descendants of Chera monarch Nedunjēral Ādan adhirajar have the names ending with Varma like Konganivarma Mahadhiraja of Gangas. It seems likely that the kings having the names ending with Varma are related to the Scythian rulers. Thus the names Chandravarman (C. A. D. 350) who ruled the Bankura district in Bengal, King Silavarman (known from recent finds—C. A. D. 250) of North India, Jayavarman of the Brihatphalāyana gotra who ruled the Andhra country, Skandavarman (A. D. 325-350) of Pallava dynasty who ruled at Kānchīpuram, Hastivarman (C. A. D. 350) of Sālankāyanas who ruled the Andhra country at Vengi in the Krishna district, and Kangavarman (A. D. 360-385) of Kadambas who ruled the South-west Deccan indicate inter-relation and connexion of the above rulers with the earlier Scythian rulers. A foreign, Pahlava, origin has rightly been postulated for the Pallavas. Tondai as the name of the dynasty of Kānchīpuram possibly be

taken to be the Tamil rendering of Pallava which itself is a decadent form of Pahlava or vise versa. Thus the Pallava king was known as Tondaiman and the Pallava kingdom as Tondainād.

One Saka prince of North India bears the name Agnivarman. The earliest Hindu Indonesian kingdom known is that of King Aji (Adji) Saka at about A. D. 79 and one King of Indonesia who sent an embassy to China in A. D. 132 was called Devavarman. In Indonesia the inscriptions of Purnavarman in Sanskrit mentions his father as a Rajadhiraja.

Like their kindred rulers in north India the south Indian rulers also used Prakrit as their language. The Pallava history discovers with three copper-plate grants (A. D. 325-350) inscribed in Prakrit while the earliest Kadamba inscription found engraved on a pillar below a shorter record of the Chutus is also in the Prakrit language.

A notable thing here is that in the early centuries of the Christian era the language of the rulers differs from the language of the ruled. This can be explained by the supposition that the race of the rulers was different from that of the ruled. This supports the suggestion that the rulers were connected to the Scythians while the Dravidians who constitute the majority of the subjects were connected with the Elamites.

In South India Prakrit persists to be the language of the inscriptions till about the close of the fourth century A. D. after which for a time of about three centuries Sanskrit becomes preferred as the sole language of administrative documents by the Kadambas, Gangas and Pallavas. By about seventh century A. D. the inscriptions come to be bilingual, employing Sanskrit usually at the beginning and the end while the local speech of the people such as Tamil, Telugu or Kannada constitute the body of the document.

The long tight-fitting cap of Krishnadevaraya represented in his sculpture seems to be the vestige of the high-peaked tight-fitting caps of the ancient Scythians.

The abovementioned South Indian rulers followed the Patriarchal system except in the case of later Chera kings. During the 9th Century A. D. one successor of Chera kingdom probably wanted to marry a Nayar girl from the Dravidian race. The orthodox royal family and the priests might have objected to the marriage. But when the King insisted on the proposal the marriage was allowed evidently under the condition that his children by the Nayar girl would not inherit the kingdom and it would go to the children of his sister. Many kings followed his example paving the way to the matriarchal system of inheritance in the Royal family.

In the second and thirteenth rock-edicts, ascribed to Asoka of the Mauryan dynasty, are mentioned the names of Chola, Pandya, Satiyaputa, Keralaputa and Tambapanni (Ceylon). All these kingdoms are clearly stated to lie outside the empire of Asoka and the King is only stretching a helping hand for the proper medical care of men and animals of the friendly kingdoms. But the characters of the above inscriptions are stated to vary in several respects from those of the northern edicts. The two edicts might have been inscribed by some Buddhist monks on their northern models at a much later date. Rhys Davids has said that the claim made in the thirteenth edict addressed to his sons and grandsons that he conquered by Dhamma the Kings of Syria, Egypt, Macedonia, Epirus and Kyrene is better evidence of Asoka's own vanity. But the wisdom of Asoka need not be questioned if we take the edict to be a forgery.

Among the first wave of Sakas who entered India two lines of rulers who had the imperial title 'King of Kings' are distinguished: (1) Maues or the Great King Moga and his followers who ruled the Punjab. (2) Vonones and his followers who ruled Arachosia (Kandahar) and Gedrosia (Baluchistan). Early they are found in Arachosia, North Gedrosia and the Punjab whereas they are not found in Kabul Valley implying that the Sakas entered India through the

Bolan Pass after crossing the Brahui mountains in Baluchistan. Significantly enough this route agrees with the supposed route of Dravidians.

Maues, whose kingdom comprised the territory between Pushkalavati and Taxila, is said to have ruled about 72 B. C. Siva, Buddha and Greek gods are figured in his coins which were made in imitation of Greek coins. Azes I who succeeded Maues cleared of the last vestiges of the house of Euthydemus from the regions of Gāndhāra, Kāpisa and the Punjab. He is suggested to have founded the era of Vikrama. The era has remained in vogue for over two thousand years and is to-day current in Gujerat, Malva and Rajasthan. The Vikrama era commences from the first day of the month of Chaitra. During the first four centuries of the era, it is said, it was known as Krita era and then as the Mālawa era while later it was designated as Vikrama. The Vikrama or Samvat era commenced on February 23, 57 B. C. The 'Marwaris' of North India open their financial year at Deewali. The day marks the beginning of a year of this Vikrama era.

The Scythian Influence

The advent of the Scythians into India resulted in infusing new ideas to the Indian people. The Divine Incarnation cult seems to be introduced to India by them. According to a Chinese mythology, Wen-Chiang, originally a star-god and afterwards a god of literature visited the earth at irregular intervals *incarnated* in various men of gifts. The narration of various incarnation of *Verethragna* in the Zoroastrian scriptures is attributed to the Central Asian influences.

The doctrine of transmigration of souls was also brought to India by the Scythians. The Vedic hymns do not allude to this doctrine. But it became a conspicuous characteristic of the later Hindu and Buddhist creed. Pythagoras probably came to know the theory from the Scythian mercenaries who

served in the Greek army. The *wheel of births* of Orphic mystery also seems to be influenced by the Scythians. However, the possibility of the Greeks of the Orphic school being the people who introduced the doctrine into India is not completely ruled out.

Srāddha or Pitriyajna (the Pitri-sacrifice, i. e. the offering of cakes and water to the Manes) was probably popularised in India by the Scythian rulers. The parental worship was popular among the ancient Chinese. According to Āpastamba's Dharma-Sutras, 'Manu revealed this ceremony which is designated by the word Sraddha.' This mention may be taken to show that Sraddha came in vogue comparatively at a later time. In North Japan crows are adored and the people there would not drive away them even if they harassed them. Hindus adore the crows at the time of Sraddha ceremony.

The name for god among the ancient Scythians, it is said, was *Bhaga* which was later Indianised as Bhagavan and Bhagavati as goddess. A devotee to Bhagavan was called a Bhagavata. The *Twelve Letters mantra* was a condensed hymn muttered by the early Bhagavatas, to which formula they attached divine power. At the same time the Buddhists also began to designate Gotama as Bhagavan.

Ganapathi, a Hindu deity, is said to appear in sculpture assigned to the fiirst century A. D. One sculpture of Ganapathi occurs on the Allahabad pillar of the middle of 4th century A. D. The worship of the deity was very popular from 5th to 10th century A. D. Ganapathi seems to be a deity worshipped by the ancient Central Asian tribes and introduced to India by the Turranians. The elephant-eared long-nosed *gana* figure of early Buddhist sculpture shows that the deity was worshipped by the Buddhists also. The legend says that Buddha was a devotee (upasaka) of the deity and that he taught the Ganapathi mantra to his disciple Ananda.

Nepal, Tibet, Burma, Turkestan, Mongolia, Cambodia, China, Japan, Siam, Indo-China and far off Mexico are mentioned as the countries where Ganapathi worship was in existence and in some of these places he is even today worshipped in different forms and with different names. Before giving offerings to the deity a Japanese villager would not begin any ceremony.

Ganapathi is called *Siddhithathar*, meaning the God of learning, as *Siddham* means the alphabet. This is borne out by the tradition that Ganapathi wrote the Mahabharata while Vyasa dictated the epic. In the native schools, before the advent of the British, a Hindu student had to learn a poem on Ganapathi before he could learn other literature. In the Aitareya Brahmana he is identified with Brihaspati, the lord of prayer. In the Hindu puranas (legends) he is described as the son of the God Siva. Vināyaka, Vighnarāja, Dvaimātura, Ganādhipa, Ekadantha, Heramba, Lambodara and Gajānana are his different names arised out of his different attributes.

The practice of widow-burning or *Sati* or *Sahagamana* was an old custom which was noticeable among the early Teutons and the Slavs but not among the Greeks and Romans. In about 2,500 B. C. the ancient people of Crete was said to have practised a custom in which the servants of a noble man made self-immolation with the death of their master. The suicide called *Hara-kiri* practiced by some in Japan is said to be a relative custom.

The custom of self-immolation of widow called *Sati* or *Anumarana* which was once in vogue in India is attributed by some scholars to the influence of the Huns, among whom similar custom was found. It is not improbable, says Sakuntala Rao Sastri, that foreign races like Mongolian races, among whom a similar custom prevails even to-day, brought with them the new custom which was assimilated into the Indian culture. In Japan and the allied nations *Hara-kiri* is

a prevailing custom in which a person commits suicide as a mark of his devotion to his master when the latter died. But it is more probable, according to the writer, that the Scythians introduced into India the practice of Sati.

The queens of Nedunjēral Ādan *adhirajar* (C. A. D. 150) and his contemporary Chola king performed Sati when the two kings died in an encounter between them. Scholars have said that both the Sakas and Parthians came from the same ancient Saka people, who later on produced the Slav tribes of Eastern Europe. Tod had traced the Rajputs, who zealously observed the custom, back to the Kushans or Yueh-chi. The Kushans were probably the Scythians of West China. In the Atharva-Veda the custom is alluded to. The *Smritis* (law books) of Samghamgirasa, Narada and Brihaspati mention the custom of Anumarana.

It has been pointed out that the ancient Lithuanians had the clan names such as Puru, Kuru, Yadav and Sudav. Then the existence of their Indian parallels may be explained as to the effect of the advent of the Scythians into India. The evidences showing that the *Aswamedha* (the horse sacrifice) was performed in some parts of northern Europe probably suggest that the same was introduced into India by the Scythian rulers. The names of rivers in Lithuania such as Tapti, Nemuna, Srobati, Narbudey have their Indian parallels in the rivers Tapti (Punjab), Yamuna, Saraswati and Narmada. Such similarities are probably due to the Scythian settlements in Lithuania and in India.

In Anthropology, the word *Shaman* is used especially for the medicine-men of Siberian, North-west American and Eskimo tribes. It is said to have derived from an ancient Central Asian language called Sogdian. A shaman was believed to have supernatural powers who could act as a mediator between man and the supernatural world. Probably the Scythians widely introduced *Shaman* into India whose name was soon Sanskritised as *Sramana*. Gotama soon was

worshipped as a Sramana. The mention of *Shamana* in the Asoka edict may indicate that Central Asian influence was infiltrated to India a little earlier.

The Scythian art has survived in objects of gold or bronze such as decorative trimmings, garments, harnesses, horsebits, axe blades, club heads, short swords, human figures and chiefly figures of animals, both real and fabulous. The Scythian style is described by Leonhard Adam "as a combination of primitive vision and technical perfection—a strange mixture of decorative stylization with naturalism." Similar decorative style is characteristic of early Chinese bronzes. The Scythian art seems to be the result of the fusion of arts of the East and West. Leonhard Adam says that many bronzes of the *Han* dynasties (206 B. C. to A. D. 200) have so many features in common with Scythian art that in his opinion a direct connection must be responsible for them. The Scythian art flourished early in the first millennium B. C., and covered the vast area from Hungary, through South Russia and Iran, to North China. It is fair to say that the Indian art in the early centuries of Christian era was evolved from a combination of Assyrian, Babylonian, ancient Persian, Greek, Scythian and native styles.

Bhrigu Samhita

For the guidance of his king a Brahmin priest named Bhrigu (c. 80 B. C.) composed a law book which has perished. It might have been known as Bhrigu Samhita or Manu Samhita. The sage Bhrigu wrote down the laws as narrated by Manu who is depicted in later pnranas as a mystical king-sage. Hence the probability of the work being to have been known as Manu-Samhita. The extant Manusmrithi seems to be rewritten in about A. D. 400 by a philosopher poet of encyclopædic erudition called Bādarayana on the basis of this original Manu-Samhita.

Bhrigu is known to have composed some vedic hymns and so he is known as a Vedic seer (Mantra Drashta). According to tradition the vedic seers perceived the vedic hymns by the will of god Brahma. Bhrigus are said to have composed innumerable hymns in praise of the Fire God. According to tradition he taught a king named Somakanta the importance of the worship of Ganapathi.

The Dharma-Sutras of Gautama

According to the laws of Gautama, a father shall give his daughter in marriage as soon as she has attained the marriageable age and any negligence on his part shall be a sin. A girl who has not been given in marriage at the proper age, shall choose her own husband provided she surrenders her right to the property of her father. However, only senior girls are to be given in marriage, and the violation of the rule is also a sin. If the husband disappears for more than six years, the wife need not wait for him further and can have a second marriage. But if a husband has renounced the world his wife should be self-restraint and lead a life of chastity. A widow desirous of offspring may obtain it to her brother-in-law with the previous permission of her teacher. If she fails, she may bear a child by cohabiting with a *Sapinda* (a relative), a *Sagotra* (of the same clan), a *Samāvapravara* (clan of equal status) or one who belongs to the same caste.

There must not be a marriage between two persons who are related within six degrees on the father's side and four degrees on the mother's side. According to Gautama the wedding of a bridegroom with a bride of equal caste, unmarried and younger than the bridegroom is preferable. He allows wedding between different castes, and children born of them are generally admitted into society. Children born by a person to the wives belonging to the first, second, third, fourth or fifth lower castes are called *Savaras, Ambashthas, Ugras, Nishadas, Daushyantas* or *Pārasavas* respectively while children born to

the wives belonging to the higher castes in an inverted order are called *Sūtas*, *Māgadhas*, *Āyognas*, *Kshatris*, *Vaidehakas* or *Chandālas* respectively.

Gautama enumerates eight kinds of wedding rites called the Brahma, Prājāpatya, Ārsha, Daiva, Gāndharva, Āsura, Rākshasa and Paisācha. The estate of a person is inherited by a legitimate son, and in the absence of such a son, a son begotten of the wife or an adopted son etc. shall inherit the estate. A person without a son can appoint his daughter to inherit his properties.

In the Dharma-Sutras of Gautama we find allusions to *Sraddha* and *Pitris*. According to Āpastamba Manu revealed Sraddha. In that case Gautama must be later than Bhrigu. Since Sraddha is a ceremony likely to have been brought to India by the Scythians, Gautama may be dated about 70 B. C. From the Gautama's mention of five Vyāhrtis well-known in the Sama-Veda, scholars hold that he belongs to the Sama-veda school. An entire chapter of Gautama is found in the Dharma Sutras of Vasishtha.

The Nyaya Sutras

The Nyāya Sutras is a semi-philosophical treatise known in the name of Gautama. The author of the Nyaya Sutras is likely to be the same as the author of the Gautama Dharma Sutras. The word Nyaya signifies 'analytically investigating' and corresponds to the *Logic* of the ancient Greeks though not completely with the modern *Logic*. (1) Pramana (means of knowledge), (2) Premeya (objects of knowledge), (3) Samsaya (doubt), (4) Prayojana (purpose), (5) Drishtanta (instance), (6) Siddhanta (established truth), (7) Avayava (premises), (8) Tarka (reasoning), (9) Nirnaya (conclusion), (10) Vāda (argumentation), (11) Jalpa (sophistry), (12) Vitanda (wrangling, cavilling), (13) Hetvabhasa (fallacies), (14) Chhala (quibbles), (15) Jati (false analogies) and Nigrahasthana (unfitness) are the sixteen topics (Padarthas) enumerated and

dealt with by the sage Gautama in his Nyaya Sutras. Gautama holds that false notion is at the root of misery and the perfect freedom from fear and desire to attain permanent bliss or salvation is realised only by a knowledge of the sixteen great topics of the Nyaya philosophy.

There is every possibility of the extant Nyaya Sutras being recast at a later age, as is evidenced in the case of some other Sutras. The Pratyaksha (perception by the senses), Anumāna (inference), Upamāna (comparison) and Sabda (verbal authority) are the different processes by which the mind arrives at a true and accurate knowledge. Though the treatment of Anumāna (inference) seems to be indigenous (as he includes vedic revelation), the Indians like others have borrowed logic from the Greeks. Aristotle (384–322 B. C.) had written a work on Logic. Incidentally it may be mentioned here that Aristotle believed in the location of the intelligence in the heart. The term 'learn by-heart, seems to have derived from this belief. Aristotle also believed in the geocentric astronomy.

There are many points of coincidence between Greek and Indian logic and the coincidences are certainly startling. Max Muller quotes Niebuhr as was reported to have said in his Lectures on Ancient History, 'If we look at Indian philosophy we discern traces of a great similarity with that of the Greeks. Now as people have given up the hypothesis that Greek philosophy formed itself after Indian philosophy, we cannot explain this similarity except by the intercourse which the Indians had with the Graeco-Macedonic kingdom of Bactria.' Niebuhr and most Greek scholars know how Greek philosophy had grown up gradually and run its growth parallel with the progress of Grecian poetry, religion, art and civilization.

Therefore the suggestion that Alexander might have sent some Indian philosophical works to his tutor at home and that Aristotle, his tutor, might have worked them up into a system

seems to be inconceivable. Sir William Jones remarks that the Nyaya seems analogous to the Peripatetic so that Gautama corresponds with Aristotle. Inspite of the new light on history some prejudiced Indian historians are still sticking to the old plea that ancient Greek thought owes much to the Indian speculation. The Nyaya is one of the six systems of Darsana or philosophy. The cross-references found throughout these six works indicate some alterations made at later times or even the rewriting of the works at later times.

The Vaiseshika Sutras

The Vaiseshika Sutras hold that the world is effected by the aggregation of atoms. The atoms are innumerable, eternal, invisible and indivisible. Each atom (Anu) has a visesha (eternal essence) from which the system derived its name Vaiseshika. God or any supreme being does not find a place in the system.

The system begins by grouping its inquiries under six categories (Padārthas) namely: 1. Substance (dravya); 2. Quality or property (guna); 3. Act or action (karma); 4. Generality or community of properties (Sāmānya); 5. Particularity or individuality (Visesha); 6. Coinherence or perpetual intimate relation (Samavāya). A seventh one called Non-existence or negation of existence (abhāva), it is said, was added by later writers.

With the help of the above categories and their sub-divisions the Vaiseshika describes its cosmogony. The Vaiseshika system is said to be a development of Nyaya system extending it to the physical investigations. The system is attributed to a sage called Kanāda (atom-eater). The real name of the author is said to be Kasyapa and the name Kanada may be a nick-name derived from his atom theory. It is probable that the extant Nyaya Sutras was produced by recasting the original treatise. The original work was probably composed by about 70 B. C.

The Vaiseshika system offers parallels to Greek philosophical ideas. It is essentially an Epicurean idea in Indian garb. Epicurus (342-270 B.C.) held that the world consists of material atoms. The atoms are, according to him, birthless, deathless and immutable. Their differences in weights, shapes and sizes account for the infinite variety of things which make the world. According to Epicurus, only those who understand the world can enjoy life which is the purpose of living. Epicurus is credited with having advanced the theory of evolution twenty-two centuries before Darwin. According to Sir William Jones the philosophical school called Vaiseshika is analogous to the Ionic, so that Kanada corresponds with Thales. Between 500 and 420 B. C., according to Childe, Leukippos of Miletus and Demokritos of Abdera created the atomic theory which paved the way for the discoveries in modern physics and chemistry. The new Greek currency which revolved wealth into discontinuous coins is said to have probably provided them the clue to the atomic theory.

During the early times the Nyaya Sutras and Vaiseshika Sutras were designated as *Ānvikshiki* and later as Darsana.

The Parasara Smriti

The Parāsara Smriti (c. 70 B. C.) was held by some of the medieval writers as the highest authority of the fourth age. Parasara mainly deals with *Āchara* (duties) and Prayaschitta (remedies). Mādhavāchārya (fourteenth century A. D.) wrote a commentary on the work giving more detailed description of the domestic rituals. According to Parasara, a widow who leads a chaste life will attain to heaven after death, and a widow who follows her husband (by immolating herself) not only will abide in heaven for as many years as the number of hair on a person, but will also take out her husband from hell to enjoy heavenly bliss with him. Parasara is said to be the grandson of Vasishtha. The work also seems to have undergone rewriting at a later period.

Jainism

Probably during the second century B. C. Vardhamāna, said to be Kshatriya of Kundagrāma, a suburb of Vaisāli, became an ascetic under the name of *Jina* (the conqueror) and carried a life of nudity. His followers were first called as *Nigranthas* (free from fetters) meaning perhaps those who are not fettered by clothes. Later, they came to be known as Jainas, followers of Jina. He was also called as *Arhat* and as *Mahāvīra*. Jina is said to have travelled and taught in the Valley of middle Ganges and died at *Pāva* near *Rājagriha* at the age of 72. A century after or so a section of the Jain saints reverted to robes but only to white robes and they were called as *Svetāmbaras* (those of white robes) while the orthodox saints were called *Digambaras* (nudes). Jaina literature states that the 23rd *Tirthankara* called Pārsva had allowed two garments. Several sects of the Svetambaras are mentioned in the inscriptions found at Mathura dateable to the first three centuries of the Christian era. Later history of Jaina tradition centred round Mathura, Ujjain and Gujarat.

According to Jain tradition Vardhamana was the last of the twenty-four Tirthankaras (prophets) who appeared on earth at regular intervals to reveal the eternal truth for the benefit of mankind. Tirthankara is a term used for deified souls. The two systems of Buddhism and Jainism have, in common, words like Jina, Arhat, etc. used for deified souls. Jainism, like Buddhism, denies the authority of the Vedas and rejects priestcraft as well as the system of caste based on birth. Both the systems deify the human soul, insist on ethical standards and follow the doctrine of non-injuring (*Ahimsa*) more strictly than others.

Jainism holds that by observing austerities one can purify his soul and obtain happiness. In the words of Prof. Prithvi Rai Raj Jain a Jaina scripture (Acharanga Sutra, 116) quotes Mahavira as saying: "Man, thou art thine own friend;

why wishest thou for a friend beyond thyself?" And another scripture (Uttaradhyayana, IX. 35) states: "Fight with yourself. Why fight with external foes? He who conquers himself through himself, will obtain happiness." An important thing is that Jainism does not claim non-human source. Jainism is based on the knowledge of Tirthankaras who had attained perfection by their own efforts in this world. According to the Jainas *Nirvana* is the state wherein Kevala-jnana or Absolute-wisdom is attained.

The Jaina cosmogony says that this world has always existed and will continue to exist for ever, undergoing innumerable changes caused by the inherent powers of different substances. The substance possesses some unchanging essential character (*gunas*) and other changing modes (*paryayas*) (Tattvarthadhigama Sutra). According to Jain metaphysics paryayas originate and decay while the gunas remain permanent. Consciousness is considered as a quality (guna) of the soul. Pleasure and pains are regarded as modes of the soul which appear and disappear. Jainism does not believe in God or Creator and forbids offering devotion to any being, human or divine.

The tapas or self-mortification practiced by the Jain saints seems to be more akin to the way of Diogenes who lived, in his tub-kennel, like a dog. The Indian expression *Kukkuravatiko* (one who behaves like a dog) is exactly analogous to the Greek word *cynic*. The word cynic is courteously applied to the sophist, the naked ascetic, Seniya. Jina is likely to be the Indian counterpart of the Greek Diogenes. When the Greaco-Bactrian kings ruled India, Indian saints had occasion to contact with the Greek saints and be influenced by their methods of self-mortification. Plucking hair out of hair and beared (*plucker-out-of-hair-and-beard*), avoiding the use of a seat (*stander-up*), moving by jumps (*croucher-down-on-the-heels*), sleeping on a skin under which thorns or iron spikes were put (*bed-of-thorns-man*) and sleeping on bare

ground were some of the self-mortification ways practised by the extreme ascetics of the day. This extreme way of asceticism did not find favour with the Buddhists, and as we shall see later, the Buddhists succumbed to what is called the middle-path or middle-way.

It is argued that nude asceticism found its way into Greece from India through the help of Alexander who had occasion to come into contact with some naked ascetics of India. But we know that nudity prevailed in Greece long before Alexander. Ancient Greek Gymnasiums offer examples of this mood. The word gymnasium simply implied a place where one might exercise *naked*. Archæologists have discovered numerous nude figures of ancient Greece. An Atlante from Gandhara shows that nude figures occur among the early Gandhara Arts. The Yajur-Veda (IX. 25) refers to the three Tirthankaras namely *Rishabha*, *Ajitanath* and *Aristanemi*. The name Aristanemi sounds like a Greek name and so it is probable that Aristanemi may be a Greek sage.

During the larger part of the nineteenth century A. D. Jainism was considered to be an offshot of Buddhism. But Buhler who made a penetrating study of Jaina literature suggested that Jainism was originated independent of Buddhism. Whatever that may be, there are no sufficient historical data to show that the Jaina system existed in the sixth or fifth century B. C. apart from the exaggerated claims made in the Jaina legends. Yajur-Veda's mentioning of Aristanemi Tirthankara adds one more evidence to the opinion already made elsewhere that Yajur-Veda was compiled about the middle of the second century B. C. Inscriptions relating to the reign of Kharavela of the Cheta dynasty recorded in the caves of Jains in the Udayagiri hill near the town of Cuttack in Orissa are assigned to the first century B. C. by scholars who favour the shorter list of the Andhra rulers. Perhaps this cave may be the earliest of the monuments of the Jains. The legendary statements that Chandragupta

Maurya embraced Jainism and Mahavira survived Gotama the Buddha is difficult to accept as history, in the absence of further proof.

The Jaina canon was put in order by Jaina councils at Mathura and Valabhī in A. D. 313 and was revised by a council at Valabhi in A. D. 453. The Jaina scriptures are all in Sanskrit.

The Ramayana

A remarkable work of the age is the great epic *Rāmāyana*. A great poet named Valmiki seems to have composed the epic sometime about 70 B. C. In it Rama is born in a royal family at Ayodhya and the royal hero kills a great demon in a distant land called Lanka. However, Valmiki narrated the story of a model prince.

Valmiki is hailed as *Ādi Kavi* (the first poet) in the Hindu puranas. Certainly we know that the two Greek epics, the Iliad and the Odyssey, known as Homeric poems, existed in the eighth or seventh century B. C. But the authorship of Homer is questioned by modern scholars and it is suggested that the Homeric epics are only a collection of ballads that existed already. Nevertheless, some of the ancient Greek dramas surely existed before Valmiki. We can perhaps adopt the claim made in the puranas in so far as he is the first author of an independent original poem of considerable size. Anyhow he is the first great poet in India at least.

For composing the work Valmiki is said to have invented a metre called *anushtup*, a stanza of 32 syllables divided into equal quarters. Hence he is also said to be the inventor of *Chatushpadi* verse, a verse divided into four parts. In the *Gāyatri* metre of Gayatri hymn we have 24 syllables divided into three equal parts. In the ancient literature of Iranians such as the Avesta we have a verse of 48 syllables divided into six parts or sixteen syllables of three parts. This Iranian metre is only a double gayatri metre.

The statement that Valmiki had sought the patronage of the Sunga rulers does not seem to be correct. But Valmiki may have had some connection with the Sunga rulers of Ayodhya, since his interest with them or with their capital is evidenced from his taking Ayodhya as the seat of his hero. In the early reign of the Sungas the city was known as Saket and it was only at a later time it got the new name Ayodhya, from which fact we can assign about 70 B. C. as a probable date for the Ramayana. According to Winternitz Valmiki composed the epic in the third century B. C.

A study of the growth of the Buddhist literature will also help us in determining the date of the Ramayana. In this connection we shall see what Rhys Davids, a renowned scholar of Buddhist literature, had to say: "After the Ramayana had become known there as a perfect epic, with the distinctive marks of the epic style, would such of the people in Kosala as had embraced the new doctrine have continued to use only the ancient method of composition ?...... Whatever the date to be assigned to this ballad literature, in mixed prose and verse, preserved in the Nikayas, the date of the Mahabharata and of the Ramayana as Epics, must be later." As the Buddhist literature of the third century B. C. does not know the epic style and is far below the literary standard of the Ramayana one may suggest a date after third century B. C. as a likely date for the Ramayana.

The original Ramayana seems to have undergone much alterations and additions in course of time as a result of which we have the extant Ramayana. The famous prologue to the Ramayana, in which some history of Valmiki is narrated, is apparently a later addition. The *Uttarakānda* in which Valmiki himself is given the role of a character also seems to have been added later. The authorship of *Bālakānda* too is questioned by modern critics. The extant Ramayana is likely to have taken its present shape somewhen about 275 A.D. Jacobi and Winternitz have stated that the original Ramayana

comprised only books II to VI of the extant recensions which comprised books I to VII.

Probably the Scythians entered Ceylon and founded a Kingdom there, which is attested by the name of Ceylonese prince ending with Verman. The people who accompanied the expedition must have largely constituted the Prakrit language speaking people who caused the creation of the Simhalese language. The question whether Valmiki took his theme from this adventure, or whether the Lanka of Valmiki is an imaginary one which is only by later writers indentified with Ceylon is left open for the present. Wheeler has maintained an unpopular theory of indebtedness of Valmiki to Homer which was refuted by Jacobi, Hopkins and others.

The Rig-Veda

Perhaps due to the strong propaganda made by the Buddhists against the killing of animals which was essential for the sacrificial ceremony, a section of the Brahmin priestly class was led to the belief that one can get the result of a sacrifice being performed by mere repetition of the Vedic hymns only. However Dvaipayana rendered the important hymns of the three Vedas into lines of metrical shape and arranged them into an order and grouped them into ten parts called *Mandalas*. "It is a collection of songs in praise of the personified elements. It is not arranged for any ritual purposes," is the remark made by Monier-Williams about the Rig-Veda.

The nature of the Rig-Veda is well-summarised by Adolf Kaegi as thus: "The internal arrangement of these Mandalas bear distinct traces of the work of a single school; the hymns in each are arranged in groups according to the gods addressed; and these groups always follow the same order,—first the hymns to Agni, then those to Indra, etc. Inside the groups the position of the hymns is determined by the number of verses in diminishing order; where this principle seems

violated, the hymns are either to be separated into shorter ones or they found a place in the collection only at a later date."

One-fourth of the Yajur-Veda is found in the Rig-Veda. Some of the hymns are mere repetitions of those in the Athava-Veda. Thus about one seventh part of the Atharva-Veda is reproduced in the Rig-Veda. The Rig-Veda has taken greater part of the Sama-Veda containing 1800 separate verses, but here torn out of their original relation and remodelled to abandon its musical score. When the Sama-Veda is included shorn of its musical score only 75 *Riks* are left out. In the ninth Mandala (book 9) all the hymns are addressed to one divinity, the inspiring Soma, honoured as a god, and are arranged with reference to the metres. The majority of the hymns are invocations and adoration of the deities addressed to accept favourably the gift reverently consecrated. The tenth book contains a small number of secular songs.

About the metrical laws of the Rig-Veda Adolf Kaegi describes: "The stanzas consist throughout of three or more, generally of three or four verses; the latter contain eight, eleven, or twelve, and are therefore usually dimeter, trimeter, or trimeter catalectic; the caesura occurs after the fourth or fifth syllable. The first syllable of the verse is not fixed in regard to quantity (ancipites), while the last four are in general strictly measured, iambic in verses of twelve syllables, trochaic in those of eleven; only a few older hymns with verses of eight syllables show a trochaic cadence." Some of the hymns of the Rig-Veda are in Anushtup metre, the originality of which is ascribed to Valmiki.

The recension which has come down to us is the text of the Sākala school (*Sākalasākha*) containing in ten books (Mandalas), 1017 or 1028 hymns or Sūktas of lyrical poetry, the extent of which nearly equals to that of the Homeric poems. The authorships of the Suktas are attributed to many sages numbering about 20 including Agastya, Vasishtha,

Visvamitra, Atri, Bhrigu, Gautama, Bharadvaja, Gritsmada, Vamadeva and Kanva. The reciter of the Yajur-Veda is called *Addvaryu*, of the Sama-Veda *Ulgātāv* and of Rig-Veda *Hotāv*.

According to the *Vishnu purana* the Yajur-Veda is the original one among the Vedas, and Vyasa who was once Dattatraya made it into four for the benefit of the priests called Adhvaryu who performed the sacrifices. The prevailing view supported by Western scholars is that the Rig-Veda is much anterior to the other three Vedas. There is no sufficient reason to forego the tradition. Tradition emphatically declares that the Yajur-Veda is anterior and Vyasa made the Vedas into four and to that extent the tradition conforms with the likelihood of a natural growth of the scriptures. As Dvaipayana compiled the fourth Veda, there is nothing wrong in saying that he divided the Vedas into four, for the act of which he is traditionally known as Veda-Vyasa (the vivisector of Vedas). He is mentioned as the son of Parāsara, Vasishtha's grandson. Angiras is often mentioned in the Rig-Veda (5-2-8; 5-11-6; 10-32-6).

The Vedic poets inform us that fire first came to them in the form of lightning only to disappear again, and that Mātarisvan, seemingly an Indian counterpart of the Greek Prometheus, brought it back and handed over it to the clan of the Bhrigus for safe keeping. Some hymns describe the method of producing fire by rubbing pieces of wood. A curious fact is that the name of the wood so used for rubbing in Sanskrit is Pramantha which comes, as shown by Kuhn, very near to the name of Prometheus. The discovery of fire by sage Angiras is also referred to in the Rig-Veda in some places.

But there is one Trita Aptya, said to be one of the mightiest of men, who loom through the mists of remoteness. He is credited to have subdued the fire first. (Rig-Veda, 10. 46. 3.) He is the first to bend the wheel (R. V. 2. 11. 205)

and the first blacksmith to smelt iron, using a pair of bellows (R. V. 5. 10. 5). He is the hunter who originally tipped the shaft with iron and threw it at the boar (R. V. 10. 99. 6). He is the first who tamed the horse and used a bridle upon it (R. V. 1. 163. 2). This Trita Aptya is said to be the Indian Prometheus though posed better than the Greek Titan. Tradition, preserved in the Brahmanas, unanimously regards Trita Aptya as a rishi or a Vedic seer. But according to Griffith he is more than that: He is an obscure Vedic god 'in the highest heaven'. To my mind the Tritaptya cult seems to be related to the Scythians.

How great importance was attached by the ancient people to the primitive discoveries is seen from the above hymns of the Rig-Veda. The Rig-Veda also represents the Iron Age civilization of ancient India. The word *Adhiraja* occurs in the Atharva-Veda (VI 98, 1 and IX 10, 24) and in the Rig-Veda (X 128, 9) perhaps indicating the date of the works being later than the advent of the Scythian rulers.

The celebrated Purusha-Sukta is generally held to be a later addition to the Rig-Veda. In the Sukta we find mystical allusions to the sacrifice of primeval male which is nothing but a symbolical story. Even then one may perceive, as Monier-Williams did, "traces of the original institution of sacrifice as a divinely-appointed ordinance typical of the one great voluntary sacrifice of the Son of God for the sins of the world." This hymn is attributed to sage Angiras. In it are mentioned the three Vedas (Rik, Yajur and Sama) and the four castes (Brahma, Kshatra, Vaisya and Sudra). This *Purusha-Sukta* idea might have been brought to India by the Greeks (from the Orphic legend about the formation of the universe in the body of Zeus) or by the Scythians who in turn might have inherited it from the Mongols.

The oldest manuscript of the Rig-Veda, known to us at present date from about 1500 A. D. Upon the whole of the Vedic scriptures essentially rest the commentaries of Madhava

Sāyana, still preserved and highly regarded by the Vedic scholars, which however were written in the fourteenth century of the Christian era. It may be Sayana who grouped the various Brahmanas and Upanishads with each of the four Vedas.

There is a curious theory that the four Vedas were composed in mind without the help of any writing and were handed down from mouth to mouth without the help of any record. This theory was apparently postulated to fit in the fantastic claim that the Vedas existed long before writing was invented. However, it seems not profitable for a student of Indian history to stick to this incredible theory in view of the so many facts to the contrary.

The Bharata

Dvaipāyana Vyāsa has also written an epic called *Bhārata*, describing a feud between Kurus and Pandavas. The story is narrated in a dialogue between Vaisampayana, the great teacher of Yajur-Veda, and Janamejaya, a king said to be a descendant of a Pandava. The work is said to have contained about 8,800 verses of anushtup metre. The Bharatas are referred in the Rig-Veda as a warrior-tribe who lived in the territory between the Ganges and Yamuna rivers.

S. N. Bose has shown that Pandavas were ethnically connected with the Scythians. Orosius, in his fomous work, mentions the folk-name 'Huni-Scythæ' as a place near Ottorokuru (Uttarakuru?). In the Aitareya Brahmana the site is said to be beyond the Himalaya mountains. According to the Puranas this locality is associated with a legendary people. Among the people of this locality, according to the Mahabharata (as pointed out by Prof. S. Krishnaswami Aiyangar), during the times of Pandu there existed polyandry. In view of the evidence found in the Indian literature Prof. Aiyangar has located, 'uttarakuru in the Tarim Basin in Chinese Turkestan.' It has been stated earlier that the Lithuanians

had the clan names such as Puru, Kuru, Yadav and Sudav. By these facts the writer is led to the conclusion that the Bharata was written after the Scythians had established their suzerainty over India and the epic mainly contained the elements of Scythian culture.

If we consider the facts such as Valmiki being hailed as one who originally used the anushtup metre, mentioning of the name of Vaisampayana in the epic, and the date at which the Indian literature could have taken an epic form, together with the apparent Scythian influence, we can almost safely date the composition of Bharata to about 50 B. C. And essentially the Rig-Veda must be compiled at the same time. In the Rig-Veda there are instances of lyrical dialogue which picture also the progress of the action and describe past events corresponding in nature to the ballad.

The chariot driven by horses are mentioned in the epic as being used for war. The horse-training and chariot-racing were useful and important sports in North Syria in the nineteenth century B. C. The Achæmenid rulers are known to have used chariots. In those ancient days only kings and chiefs could afford to use a chariot. This original Bharata has been rewritten by Badarayana (c. A. D. 400) about which we shall see later.

The Kushans

A Central Asian tribe, also said to be a Scythian branch, called the Kushana (Yeuchi in Chinese, meaning moon-people) came from Western China and settled down in Afghanistan about the beginning of the Christian era. The Kushan dynasty annexed Punjab to their rule. They became strong and consequently the Saka satraps acknowledged them as overlords. The greatest king of the dynasty was Kanishka and at the time of his accession his empire included the territory of Gandhara, Pamir region, the whole of Punjab, Upper Sind, Rajputana, Kathiawar and Gujerat. He probably added the Valley of

the Ganges up to Patna and perhaps Malva also to his kingdom. He even extended his kingdom beyond the Himalayas by conquering Kashmir, Khotan, Yarkhand and Kashgar (Chinese Turkestan). Purushapura, the modern Peshawar was his capital and his empire was bordered by those of the Roman on the north-west and Chinese on the north-east.

Kanishka is said to have started Saka era called *Saka-nripa-kāla* beginning in A. D. 78. His coins represent figures of Salene or Mao (moon), Helios or Mirro (sun), Fire, Siva with two or four arms, and Buddha standing dressed in Greek manner or seated in Indian way. He was a patron of Buddhism and built several magnificent stupas and monasteries among which the stupa and the towers he built at Purushapura were highly admired by the later Chinese Buddhist pilgrims who had visited India. During the epoch of the Kushanas, trade between the countries of Central Asia, China, Western Asia and Europe was largely carried on. The Kushana rulers made fine coins probably imitating Roman emperors.

Buddhist Mission

Kanishka might have helped to spread Buddhism in India and abroad and might have even patronised Buddhist missions to China. He himself being a Scythian who believed in reincarnation helped to spread the Bodhisattva ideal of Buddhism. Two Buddhist monks named Kashyapa Matanga (said to be an Indo-Scythian) and his associate Dharmaratna (or Dharmaraksha) went on a Buddhist mission to China whom, in accordance with Chinese annals, the Chinese emperor Ming-Ti of the Han dynasty received with great honour in the year 65 A. D. The author thinks that Kashyapa Matanga is likely to be the first Buddhist monk who spread the Bodhisattva ideal. Buddhism found favour with the Chinese because it was presented to them in a Chinese garb.

Sea Trade

After the victory of Augustus direct sea trade between India and Egypt became intensified under the Roman influence and protection. Till A. D. 50 ships from Egyptian ports such as Berenice and Arsinoe sailed to the Indus delta taking a long route along the coasts of southern Arabia and Persia. Soon after A. D. 50 the sailors used the discovery of Hippalos, a Greek sea captain, that the ships could sail across the Arabian sea with the help of monsoon winds.

Thus the monsoon winds enabled a ship from Berenice to reach peninsular India after sailing only 2,760 miles taking a time less than six months. The return voyage was possible within ninety days. So a corn-ship from Italy leaving in May, taking Nile boat and caravan from Alexandria to the Red Sea, could reach peninsular India and return covering only a little over a year. Among the fleet engaged in the traffic a ship is recorded to measure 180 ft. in length, 45 ft. in width and 44 ft. in depth.

From India the ships brought to the market of Rome dancing girls, precious stones, parrots, ivory, ebony, pearls, pepper and perfumes, and Chinese silks and drugs already brought to India by sea or overland. Glass, fine textiles, metal ware, papyrus, parchment and coral were exported eastwards from the Roman empire. The Roman gold coin *aurei* of the time discovered in numbers in India, Ceylon and China are remnants of this ancient trade.

Samkhya System

Sage Kapila wrote a work on cosmogony, perhaps called *Shashti-Tantra*. Sixty entities are enumerated and dealt with by the sage in the work. His followers held that by the knowledge of the cosmogony explained in the system one could attain salvation. The Shashti-Tantra later came to be

known by the name *Sāmkhya* system (the enumerated system) on account of its enumerated nature. Isvarakrishna wrote *Kārikas* (non-poetical verses) on Shashti-Tantra and enhanced the number of entities into 72. A still later work called Tattva-Samasa, on the contrary, reduces the number to 25. The Bhāgavata Purana follows Tattva-Samasa. The work of Kapila, the original work on Samkhya system of philosophy, is now lost. Kapila is mentioned by Isvarakrishna, Varahamihira and many other authors.

Undeveloped principle (Prakriti), intellect, the subject (of three kinds), five essences (of sound, touch, colour, savour and odour), five perceptive organs, five active organs, mind, five material elements (ether, air, fire, water and earth), spirit or self, triad of forces, evolution, dissolution, five apprehensions, five sources of activity, five winds, Nescience (five-fold), Weakness (twenty-eight-fold), Contentment (nine-fold), perfection (eight-fold), eight cardinal facts, benevolent creation, creation of fourteen material elements, bondage (three-fold), freedom (three-fold), authorities (three-fold) and pain (three-fold) are the main entities or Tattvas described by the Samkhya system of philosophy.

The subtle elementary essence called Prakrit is made up of three substances called Gunas such as Sattva (goodness or purity), Rajas (passion or activity), and Tamas (darkness or stolidity). The enumerated Samkhyan Tattvas or entities are all evolved themselves spontaneously out of the rootless eternal Prakriti. The soul or spirit called Purusha is naturally devoid of Gunas (qualities), but is liable to be influenced by the Gunas of Prakriti. Individual souls that existed already join with the Evolver Prakriti to form beings. Now the souls are liable to be bound by the qualities of Prakriti. The aim of the Samkhya system is to liberate a soul or Purusha from the bondage resulted from its union with Prakriti. A knowledge of the Samkhya philosophy enables one to liberate his soul from the fetters which bind it.

An ancient town called Kuluta situated in Kulu Valley on the Upper Beas was a famous centre of Buddhism. Kiu-lu-to, mentioned by Hiuen Tsang who was a Chinese pilgrim, may correspond to this town. Here is found a Buddhist image of *Avalokita* who was worshipped under the name Kapila-muni (sage Kapila). Hence the name of Kapila of the founder of the Samkhya system is a Buddhist one. His philosophy also corresponds to Buddhist one since he does not admit God in the system. As he concedes the separate existence of the soul, his philosophy is quite different from the *Anatta* (no soul) philosophy. Sir William Jones states that the Samkhya philosophy is analogous to the Italic, and Kapila corresponds with Pythagoras. Samkhya system shows an earnest attempt of an ancient philosopher scientist to explain the riddles of the universe without the help of a god.

Balasastrin declares that the extant Samkhya-Sutras was composed by the well-known Vijnana-Bhikshu in the sixteenth century A. D. His Buddhist inclination is seen from his mention of Dakshina-bandha (giving presents to priests) as one of the bondages one is to be free from. Kapila propably lived in about A.D. 50. However, the possibility of his being a contemporary of Gautama and Kanada is not altogether ruled out.

The Bhakti Cult

A great sage called Nārada preached to the ancient people of India to worship a personal God under the name Narayana—that which lies on water. He got erected the famous temple of Narayana at Badari at the foot of the Himalayas, in which he himself installed the image of Narayana. And the Lord came to be known as Badrinath (the Lord of Badari). The temple of Badrinath is called Naradiya Kshetra. There is a sacred rock called Naradashila in front of the temple. Narada propagated that by having devotion to Narayana one could get salvation. He enunciated

the *Narayana Mantra*, daily recited by the followers of *Nārada Pancharātra*. The cult known as Bhakti cult—the salvation by faith—was introduced into Brahminism by Narada. He also instituted temple and idol worship in Brahminism. Thus the original Brahminism eventually became what is later known as Hinduism. So Narada can be rightly called the father of the popular Hinduism.

Among his literary works Narada Pancharatram is the most important. *Narada Bhakti Sutras*, often attributed to him, seems to be a later work, perhaps based on an original work by Narada. Narada-Bhakti-Sutras mention Kumāra, Vyasa, Shuka, Shāndilya, Garga, Vishnu, Kaundinya, Shesha, Uddhava, Aruni, Bāli, Hanuman and Vibhishana. As Shuka is the reputed teacher of Gaudapāda, the work must belong to the sixth century A. D. at the earliest. His law book called Narada Smriti is another work of great importance. Some grammatical and musical works are also known in his name.

Ancient Sumerians are known to have given form to barbaric melodies. Musical instruments such as drums, horns, harps, rattles and flutles were used in their temples. The heptatonic scale so widely used in the modern world was also known to them. Sage Narada was a famous musician. Sama-Veda indicates that the Vedic people were fond of music. The Indians might have inherited the Sumerian instruments.

Narada was a high priest, an organiser of Hindu church, a great philosopher, a great law-giver, and a great poet as well as a great musician. No wonder there are few stories in the Hindu puranas wherein he has not a role to play. In the puranas he is depicted as a roving ambassador of the gods and people ever striving to save the oppressed and punish the evil doer, inherently demonstrating in all the stories the explicit success of the Bhakti cult. He is not a Vedic seer, but his God Narayana is mentioned in *Satapatha Brahmana* and some Upanishads. Among the *Rishis* he is ranked in *Devarshi*—the highest rank among the Rishis attributed in the Hindu

literature. About A. D. 50 seems to be a probable date for him. The *Aitareya Brahmana* (VIII. 14, 4.) says that Narada along with Parvata was the priest of two kings named Ambasthya and Undhansrausti Augrasenya.

Professor Bhandarkar, a distinguished scholar, says that inscriptions from 300 B. C. to A. D. 100 mention large number of gifts as given by kings, princes, merchants, goldsmiths, artisans and ordinary householders while no grants to Brahmin and to Brahmin god or to Brahmin temple are recorded. Soon after the period numerous grants of land to Brahmins, and to the temples in their charge are found recorded. This epigraphical evidence shows that Brahmin temples were instituted after about A. D. 100.

Satavahanas

By about the beginning of the Christian era there arose a famous kingdom ruled by a dynasty (kula) of Sātavāhanas said to belong to the Andhra nation (jāti). According to the *Puranas* Andhras were the successors of the Kānva kings and Simuka was the first of the Andhra rulers who slew Sudarman, the last of the Kanva rulers. The rule of the Kanvas ended about 28 or 27 B. C. The kingdom of Andhras was originally located in the Godavari-Krishna delta region and rapidly expanded to the West through the Deccan. Later, the Satavahana name was changed into Sālivāhana. The name Satakarni was borne by several rulers of the line. Satakarni is said to mean son of Satakarna (hundred-eared). The term recalls Nūrruvar-Kannar (hundred kannas) mentioned in a Tamil epic called Silappadikaram, as the rulers of some country on the banks of the Ganges, who were friends of Cheran Chenguttavan. Some have identified Satavahana with Satiyaputas of Asoka edict. Satakarni may mean a ruler who has hundred villages. The third ruler of the line called Satakarni I is known to have performed *asvamedha* and *rājasūya* sacrifices from an inscription of queen Nāganika, his widow and daughter

of a Mahārathi. Later, the Satavahana power was reduced by the intrusion of Saka satraps of the Kshaharāta family, but under Gautamiputra Satakarni the power of Satavahana was revived. The ruler is mentioned as the destroyer of the Yavanas, Sakas and Pahlavas. He extended his kingdom to include northern Mahārāshtra, Konkan, the Narmada Valley, Surāshtra, Mālva, Western Rajputana, Vidarbha and Banavāsi. His mother Gautami Balasri recorded his achievements in an inscription at Nasik. Sri Yajna Satakarni (c. A. D. 200) was apparently the last king to rule from Arabian sea to Bay of Bengal right across the Deccan.

The Western Satraps

Among the Saka kings of Kathiawar and Malwa, who are called Western Satraps, Mahakshatrapa Rudradaman (A.D. 120 to 155) was very powerful. He recovered Malwa from the kingdom of Andhra. He was a believer in Hinduism and a patronizer of Sanskrit. Ujjain was made the capital of the kingdom by his successors and the kingdom flourished for about three centuries.

Yajnavalkya-smriti

Yājnavalkya-smriti is a law book in verses composed by the sage Yajnavalkya and was for centuries the leading authority of the people of many parts of India. Even to-day it is held in high esteem. The work stresses more on the secular aspect of dharma (law). Yajnavalkya probably lived about A. D. 100. Another name of Yajnavalkya mentioned in the puranas is Devarāta. It may be his earlier name before he took to asceticism. He lived in a district called Mithila in North Bihar.

Yajnavalkya uses the word *Kanya* for a girl who has attained the marriageable age whereas the author of Manu-smriti uses the word *Kumāri* for the same. Instead of Prajapatya marriage he describes another rite called Kāya

which he defines as a wedding in which the girl is given to a person after saying "practise religion with her". He recommends to a man to marry a girl from a Mahakula which he defined as a family well-known for five generations both on the sides of father and mother. Yajnavalkya ordains that a chaste woman whether a widow or wife attains fame in this world and enjoys bliss with *Uma* in the next world.

Yajnavalkya would eat meat provided it was tender. He ordains that the success of every action depends on destiny which is the result of a person's act in a former state of existence and on the person's own effort. Yajnavalkya's code is much more concise and systematic than the Manusmriti.

Vajasaneya Samhita

Vājasaneya, son of Yajnavalkya, rearranged the Yajur-Veda bringing together the hymns in the part called Samhita (perhaps for the convenience of studying the hymns by heart) and the interpretation and ritual in the part called *Brāhmana*. The system of teaching of Yajur-Veda according to this book came to be known as *Vajasaneya Sākha*, the branch of Vajasaneya. The Samhita is known as *Vajasaneya Samhita*. This is mentioned by the author of *Pratishtha Prakas* in the verse "*Tasya Yajnavalkyasya Putrasya Pravarthakatvaal Sa Sakha Vajasaneyee Patthithaa*".

Vajasaneya's Yajur-Veda book came to be known as *Sukla Yajur-Veda* (white Yajur-Veda) and the orthodox book as *Krishna Yajur-Veda* (Black Yajur-Veda). In the Black the sacrificial verses are followed immediately by their dogmatic interpretation, description of the accompanying ritual etc. This branch is known as *Taittiriya*.

Here mention may be made about a legend about Yajur-Veda and its teacher, Vaisampayana. Once Vaisampayana was cursed to suffer a sin by some sages for his failure to attend their conference. Vaisampayana requested his

disciples to expiate the sin by practising austerities. When one disciple, Yajnavalkya by name, told the master that these worthless disciples will not be able to do the task the master got wild and asked Yajnavalkya to give back what he had learned from the teacher. The egotist Yajnavalkya no sooner did so than he found himself to be a mere beast without any Vedic knowledge. He prayed to the Sun, who taught him the Vedas. This particular branch of Vedas thereafter came to be known as Sukla-Yajur-Veda. Some Rishis took the form of *Tittiri* birds and gathered up the Vedas cast by Yajnavalkya and this collected Vedas came to be known as *Taittiriya*. Another legend described by the author of *Pratishtha Prakas* says Yajnavalkya incarnated in the name of Vajasaneya in the *Treta Yuga*. All the legends only confirm the historical fact that Vaisampayana originally compiled the Yajur-Veda and Vajasaneya arranged the Vajasaneya Samhita. Probably Vajasaneya wrote the *Isavasyopanishad*.

Satapatha Brahmana

Janaka (C. A.D. 130) hailing from a royal family of Mithila wrote *Satapatha Brahmana* by revising and enlarging the ritual portion of the Vajasaneya Samhita. Brahmanas are commentaries on Vedas written in prose laying special emphasis upon sacrifices and sacrificial rites. They serve as guides for the employment of hymns at sacrifices. They ask us to repay our debt to gods by performing the sacrifices, to the seers by showing devotion to them, to the manes by praying for them, to people by extending love and help and to the other creatures by giving them food. In Satapatha Brahmana the world-egg conception is seen fully developed. Narayana is referred in the work (XII 3. 4. 1). But Vishnu occurs as a Vedic deity even in Rig-Veda.

Probably Janaka wrote the Brihadaranyaka Upanishad. In this upanishad the philosophical discourse of Yajnavalkya

is described among others. Janaka is said to be a disciple of Yajnavalkya. However, his immediate teacher seems to be Vajasaneya. Vishnu-smriti is a law book by Vishnu (C. 150 A. D.) who is considered not much later than Yajnavalkya. He ordains that the duty of a widow is to preserve her chastity (Brahmancharyam) or to ascend the funeral pyre of the husband. Niyoga is sanctioned by Vishnu.

Ashtadhyayi

Yaska (C. A. D. 100) wrote an etymological commentary on the Vedas called *Nirukta*. He had before him a lexicon of Vedic words with five chapters. The Nirukta is said to be a commentary on the said lexicon with the help of quotations from Vedic Samhitas. He mentions Gārgya, Gālava, Sākataya and Sākalya and also the epic writers. He also mentions Buddhist *Nikaya* and *Samgham*.

Pānini (C. A. D. 150), the great grammarian of Kashmir, wrote the great grammatical work called *Ashtadhyāyi*. It is also known as *Panini Sutras*. He has mentioned grammarians such as Āpisali, Kāsakrilsne, Kasyapa and Gargya. Houston Chamberlain, an English scholar, had pointed out Panini as the first grammarian of the world. That the original Mahabharata existed before Panini is evidenced by his allusions to Yudhishthira, Arjuna and Vasudeva.

Vyādi (C. A. D. 200) reputed to be a descendant of Panini wrote a work called *Paribhasas* giving rules of interpretation for Panini Sutras. He is credited with the authorship of an extensive grammatical work named Samgraha containing 100,000 verses. He composed a lexicon called Utpalini.

Kātyayana (C. A. D. 250) who is also known as Vararuchi and said to be a *southerner* wrote Vartikas on Panini in which he even criticised the latter. He cites Vyadi. He also wrote Vajasaneya Pratisakya, dealing with the language and grammar of the Vajasaneya Samhita.

Patanjali (C. A. D. 300) wrote the great commentary on Panini Sutras called *Mahābhāshya* largely resting on the Samgraha of Vyadi and discussing Vartikas of Katyayana. The work is held in high esteem among the Sanskrit scholars. Yoga Sutras, his another great work, will be dealt with later.

Dhammapada

Dhammapada, a Pali work, is a well-known book of Buddhist aphorism in verses containing a collection of wise sayings. Lin Yutang, the great Chinese scholar, says that "the Dhammapada is a great spiritual testimony, one of the very few religious masterpieces in the world, combining genuineness of spiritual passion with a happy gift of literary expression." He also adds that 'it is closer to the modern man than the Bhagavad-Gita' and it 'belongs to the world and to all time.' The authorship of Dhammapada is ascribed to Dharmatrata, uncle of Vasumitra who was said to be the president of the Buddhist Council under Kanishka. Responsible historians have not accepted the authenticity of the council. The work seems to have been composed at the close of the second (C. A. D. 200) century A. D.

Samuel Beal discovered a Chinese translation of the text and translated it into English. The Chinese version was said to be made about the beginning of the third century A. D. But it may be remembered that Chinese dates are not found always to be accurate. The Chinese translation contains 423 verses divided into 39 chapters whereas the original Pali text has 26 chapters and 760 verses. The Pali book contains verses alone, the Chinese weaves them into stories and parables, and incidents connected with the Buddha's life. The work has got five translations in European languages, the first being by Max Muller in 1870.

The advice on good friends, difference between the wise and the fools, stress on self-examination, freedom from fear, inner repose and moral strength are among the contents of the

book, which are said to be close to Confucian and Taoist teachings. The book is commented by Buddhaghosa in the middle of the fifth century A. D.

The Brihaspati Samhita

The sage Brihaspati (C. A. D. 200) has written a law book known as *Brihaspati Samhita*. He has allowed eight kinds of marriages. He says that a man of thirty years old may wed a girl of ten or a man of twenty-one years may wed a girl of seven. The same recommendation is followed by the *Vishnu Purana*. According to Brihaspati a wife is deemed to be the half body of the husband equally sharing the fruits of his good or bad deeds. It is the duty of the wife to protect the welfare of her husband. According to him the wife may ascend the pile of the husband or choose to survive the husband leading a virtuous life. The Brihaspati Samhita was commented by Medhatithi in the ninth century A. D. Brihaspati is known to have written a book on *Artha Sastra* known as *Bārhaspatya Danda Niti*. He belongs to the school of Angiras or he is a descendant of Angiras and hence is known as Āngirasa also. In the Puranas (Hindu legends) he is depicted as the teacher of the Devas (gods). Jolly places Katyayana and Brihaspati after Narada.

In a supposed work, said to be now lost, and doubtfully ascribed to Brihaspati, were described the materialistic views. The remnants of the work are found quoted in the polemical works of other philosophies. The first chapter of the *Sarvadarsanasamgraha* of Sāyana contains a summary of the teaching of this materialistic school. In Sanskrit materialists are known as Lokāyatikas or Lokayatas. According to the Lokayatas the life is produced from air, fire, water and earth. The soul is not different from the body and the phenomenon of the world is spontaneously produced without the help of *Adrishta* (invisible one). The thinking faculty of man is produced by matter. There is nothing like next world such as hell or

heaven. For all lives death is the end. Only perceptual evidence can be taken as authority. This philosophy resembles the Epicurean thought. It has a parallel in the Anatta (no soul) philosophy of a section of the Buddhists.

The Barhaspatya philosophy is given in Mahabharata in a discourse by Charvaka at the end of which he was no sooner detected to be a demon in the disguise of a Brahmin than he was killed. See the clever way in which the author of Mahabharata ridicules materialism. Probably after this story the materialists are also called *Chārvākas*. The Hindu philosophers who did not want to oppose directly the authors of other schools of philosophy or religion might have probably made Brihaspati to present the opposite view in order to smash it.

Mahayana Buddhism

By the third century A. D. there developed a sect of Buddhists called *Mahāyāna* (great path or large vehicle). They regarded Buddha as a god and began to worship his images. The stories of Buddha incarnations began to spread among them, and they recognised the incarnations as *Bodhisattvas* prayers to whom could lead the devotee along the right path. Later the Bodhisattva ideal was further developed in which any devotee* could attain the Bodhisattvahood before he enjoys the Nirvana or the permanent bliss. The Bodhisattvas are deified souls who attained the status by self-effort and delayed the attainment of Nirvana to carry the remaining human beings on the earth with them. The school of those people who adhered to the new Buddhism were called Mahasamghika from whom scholars derive the birth of Mahayana. The Mahayanists believed the images of the Buddha would serve as an example to the devotees reminding them of the various stages of Bodhisattva-hood Gotama, the Manusha Buddha (anthropomorphical Buddha), had to undergo to become a Buddha, of the sacrifices he made to free the

souls under bondage and the services he rendered to the suffering mankind.

Probably the advent of the Scythians into India caused the development of Mahayana Buddhism. The Scythian ideas about the incarnations of god and their legends seem to have moulded the Buddhist beliefs. The Scythian rulers employed Greek sculptors to produce the images of Buddha and the Bodhisattvas. The Mahayanist belief in salvation by faith or devotion to a personified ideal resembles the Bhakti cult of Hinduism.

All the Mahayana scriptures are in Sanskrit. *Mahavastu* seems to be an early scripture of the Mahayanists. Later, Mahayana Buddhism became the religion of Nepal, Tibet, China, Mongolia, Korea and Japan.

Works of Nagarjuna

Nāgarjuna, one of the greatest thinkers of India, was born in Vidarbha and he spent most of his life in the monastery and university built on Sri Parvata in Guntur district and died there. Nagarjuna, the great Buddhist philosopher, is said to have formulated or at least consolidated the *Madhyamika* (Middle Path) school which reconciled the doctrine of realism and Nihilism. But the internal evidence of his works does not fully agree with this. The vehicle for his famous teaching is the veritable literature known as the Prajna-Parimita written in Sanskrit.

Christmas Humphreys says: "In the very brief Prajna-Parimita-Hridaya Sutra, recited daily throughout the Far East in a thousand monasteries, the emptiness of all form is magnificently summarised. Perhaps the best known work of the Prajna-Parimita group, however, is the *Vajracchedika* (diamond) Sutra, the recital of which enabled Hui-Neng to achieve Satori or Enlightenment. These groups of Sutras developed the doctrine of *Sunyata* (Void) and its related doctrine of *Tathata*, or *suchness*, the seeds of which, as already explained, are to be found in the Hinayana."

Avatamsaka is a Mahayana Sutra in Sanskrit, the transcendental philosophy of which is said to have influenced Nagarjuna. It formed one of the basic *studies* of the famous ancient university of Nalanda which flourished between the third and ninth centuries A. D. The great Buddhist writer called Āryadeva is said to be a prominent disciple of Nagarjuna. His commentary on the Mādhyamikasastra is famous.

A. B. Keith in his *Karma Mimamsa* says that "Aryadeva, Nagarjuna's contemporary refers to the Zodical signs and the week-days, which were not known in India until that epoch" (third century A. D.). Nagarjuna may have flourished about A. D. 250.

The Extant Ramayana

Usanas (C. A. D. 275) was a sage of great erudition. His work on *Neeti-Sastra* (polity) known as *Sukra Nīti Sāra* is well-known. He has written a smriti (law book) also. He is a descendant of Bhrigu and hence is a Bhārgava. He is depicted in the Puranas as the teacher of the *Asuras* (demons). He is hailed as a great poet in the Bhagavad gita, though some scholars have read the reference 'Usana Kavi' to mean sage Usanas in contrast to the context. The writer suspects him to be the author by whom the Rāmāyana may have assumed its final shape, including the Bālakānda and Uttarakānda (supplement) and perhaps the prologue, for less than the authorship of the Ramayana he could not have got praise from the author of Gita. After I have written these words I came across many materials in support of my above hypothesis. It is stated in the Uttarakanda of the Ramayana that sage Valmīki composed the main story to which Bhargava interpolated episodes after some time. The traditional name of Valmiki, the *Ādikavi* (original poet), may imply that Ramayana had a subsequent author. According to tradition Valmiki is Bhargava who is also known as

Prācetasa who is tenth in descent from Pracetasa. He is also called Cyavanaputra. If we leave alone the confusion created by tradition, we can presume pretty well that the Bhargava mentioned in the Uttarakanda is the same as the Usanas mentioned in the Gita since according to Amarakosa Usanas is called Bhargava also.

The extant Ramayana comprises 24000 verses divided into seven books. According to tradition each thousand stanzas begins with a letter of the Gayatri hymn containing 24 letters. Jacobi says that books II to VI formed the original epic and Book I and Book VII are later additions. The interpolations portray the original mortal hero, Rama, into an incarnation of Vishnu and gives Vishnu the important place instead of the Vedic Indra in the original Ramayana. Vishnu is the name given to the Yajna-moorthi, the god of sacrifice, who is later identified with the Sun God. The interpolations display difference in language and style and describe matters that have little relation with the main theme of the story. But the additions are fully in accordance with the spirit of the genuine sections. These interpolations were made before the several recensions of the extant text arose. Winternitz states that Books I and VII were added after a long time probably about A. D. 200. The change of the original mortal hero into a deity in the work implies the lapse of a good deal of time before the final shaping of the epic.

We have already seen that the cult of incarnation of God was introduced into Iran and India by the Scythians. Perhaps in imitation of the incarnation stories of *Verethragna* or the rebirth stories of the Buddha the ancient Hindus began to mould the mortal hero of Valmiki into a divine incarnation of god Vishnu. It is this tendency that found expression in the extant *Valmiki Ramayana* and culminated in a later work called *Adhyātma Ramayana*.

Levi has shown that the North-western recension of Valmiki Ramayana existed in the sixth century A. D.

According to K. A. Nilakanta Sastri the extant Valmiki Ramayana was known in Champā in the seventh century A. D. G. W. Gurner has pointed out the considerable influence of the poetic style of Ramayana on the works of Asvaghosa. Sukthanker states that the extant Valmiki Ramayana served as a source for phraseology, thought, genealogies and tales to the compiler of Mahabharata. So he holds that the extant Ramayana was composed somewhen between the time of compilation of the original Bharata and the time of the compilation of later Mahabharata. J. J. Pandya has given quotations from the works of Kalidasa to indicate the acquaintance of Kalidasa with the extant Ramayana. Kalidasa has mentioned Kaviputra (son of Kavi) as a dramatist in *Mālavikāgnimitra*.

Usanas is also known by the name Kavi (poet). Names such as Manu, Gautama, Kasyapa, Vasishtha, Vamadeva, Jabali, Katyayana, Narayana Sire, Bharadvaja, Atri, Valmiki, Agastya, Markandeya, Yavanas, Parthians, and Sakas are found in the extant Valmiki Ramayana. Jabali is mentioned also as the sceptic who denied heaven and a world hereafter and of future life. Jabali is mentioned along with Wise Vijaya versed in holy ancient lore.

Yoga Sutras

Yoga Sutras (Yoga Aphorisms), a work on ascetic exercises supposed to deliver the self from the fetters of the body and the bodily senses, was written in Sanskrit by Patanjali. The strange exercises consist of forced and painful postures, twistings and contortions of the limbs, and suppressions of the breath undertaken to achieve vacuity of mind. The book contains four parts, the first part called the *Samādhi-pada* being devoted to the explanation of the form and aim of Yoga, and of absorption of thought; the second part called the *Sādhana-pada* being devoted to the explanation of the means of arriving at this absorption; the third part

named the *Vibhūti-pada* describing the 'supernatural powers that can be obtained by absorption and ascetic exercises'; and the last part called *Kaivalya-pada* describing the isolation of the soul from the universe and its return to itself.

The suppression of all action can be achieved by meditating upon the Supreme Being, the Universal Soul. The repetition of the monosyllable Om which is one of the appellations of this Supreme Being is held to be all-efficacious in obtaining knowledge of the Supreme Being and warding off the obstacles to Yoga. Rajendra Mitra says that Om is Indianised form of Hebrew Amen. Probably both may have derived from a common origin.

The author of Yoga-Sutras is the same Patanjali who wrote the highly reputed *Mahabhashya*. The title given by Patanjali to the Yoga-Sutras is *Atha Yoganusasanam* (Now begins the teaching of the Yoga) and the title given by him to his Mahabhashya is *Atha Sabdanusasanam* (Now begins the teaching of Words or of the Word). The date of Patanjali is about 300 A. D. as is mentioned earlier. The Yoga-Sutras was written, according to Professor James Haughton Woods, in the fourth or fifth centuries A. D. The Ābhiras, said to be foreigners, who figured as generals under the Saka Satraps of Western India and Isvarasena (A. D. 235–40) are mentioned in the Mahabhashya.

Yoga as a technical term occurs in *Taittiriya* and *Kātha* Upanishads and in Asvalayana-Grihya-Sutras. According to the *Chandogya* Upanishad (III, 11., VIII, 15) the Yoga system was handed down by various descendants from Prajapati to Manu and from Manu to the people. The Bhagavad-gita also says that the Yoga was told by Lord Krishna to Vivasvat, Vivasvat to Manu and Manu told it to Ikshvaku and thus the royal sages came to know it. It is likely that the Yoga system was developed from the practice of self-mortification undertaken by the earlier sages. Sir William Jones says that the philosophical school of Yoga seems analogous to

the Stoic philosophy and that Patanjali corresponds with Zeno.

In the ancient literature Patanjali is exalted as an intellectual giant. His another name is Shesha and he is curiously depicted in the puranas as the incarnation of the great Serpent Shesha of the mythology. It is interesting to know that in the ancient literature serpent is portrayed as a symbol of wisdom who even produces precious stones. Moreover, Shesha is said to have one-thousand heads. Hence an ancient author may have found it not improper to compare Patanjali mythologically with the Serpent Shesha in order to expound former's genius.

Purana-samhita

Sūta Lomaharshana compiled a work containing cosmogony, genealogies of gods and kings and ancient tales. The work is called *Purāna-Samhita*. Jackson and others hold that there was only one Purana in the early days since the word Purana is used in singular in Atharva-Veda. The identity of language in the lists of dynasties found in the existing Puranas is also cited in support of this. Three disciples of Lomaharshana compiled three collections of Puranas which are named after them as *Sāvarnika*, *Sāmsapāyanika* and *Kāsyapika*. According to the Vishnu Purana (III. 6. 15) the above four Puranas formed the root-samhitas. Amarasimha (C. A. D. 550) defined a Purana as a literature having five principal contents such as cosmogony and genealogies of gods and kings. Purana Kasyapa seems to be different from Kasyapa, the Kanada.

Pargiter has shown that dynastic portion of the extant Puranas ends with the fall of the Andhras about A. D. 236. Matsya Purana narrates the story of the dynasty till the middle of the third century A. D. These four Puranas seem to have been composed before A. D. 335 since no reference to the conquests of Samudra-gupta is found in the existing

Puranas. If we are to rely on the tradition that Lomaharshana was the teacher of the authors of the other three Puranas, the Lomaharshanic Purana was probably compiled about A. D. 300. These four Puranas are not extant to-day. The extant medieval Puranas (the main Puranas numbering 18) are based on these. They contain historical, philosophical, religious and other matters and serve as encyclopaedia of medieval and ancient Hinduism. They hold Prajapati existing at the beginning of all things and Waters to have preceded him or to have been coeval with him.

The *Yuga Dharma* or the law of the epoch described in the ancient Puranas clearly shows that the ancient people of India had fully grasped the principle that the laws changed with the change in social conditions. Puranas state, that some kingly dynasties of India classed under *Sūrya Vamsa* (dynasty of Sun) are descended from Ikshaku. This Ikshaku tradition may be related to the Ishaku, the high priest of the chief God Ningirsu at Lagash in ancient Sumer. Ishaku was a war-chief and he commanded the army of citizens.

Chapter VII

THE LATE CLASSICAL AGE

Politics from A. D. 300 to 700

In about A. D. 300 a kingdom whose capital was seated in the famous city of Pataliputra emerged into prominence under a new line of kings called the Guptas. The first of the line called Chandra Gupta I was succeeded by his son Samudra Gupta (A. D. 330–380), a renowned conqueror and a great patron of fine arts. He extended his power up to the river Ravi in the West and as far as Kānchi in the South. A beautiful Sanskrit verse describing his expedition is inscribed just below the Asoka edicts on a pillar at Allahabad. His discovered coins show that he had performed a horse-sacrifice. Embassies from Gandhara, Bactria and Ceylon came to his court. On some coins he is represented as playing on the *veena*.

The next king, his son Chandra Gupta II (A. D. 380–414), conquered the Saka kingdoms of Malwa and Sourastra and assumed the titles of Vikramāditya (Sun of Valour) and Sakari (The slayer of the Sakas). It is generally believed that King Vikrama of the stories refer to this Gupta ruler and that the great Sanskrit poet Kālidasa adorned his court. After the reign of two more rulers the Gupta power declined by the year A. D. 500, deteriorated to the position of a local chieftainship of Pataliputra while one branch of the dynasty settled down in a part of Malwa.

In the fifth century A. D. the barbaric hordes from Central Asia called Hunas poured into India through the Khyber Pass. By their successive invasions they broke up

the Gupta empire and slowly subdued many territories in North India and settled down in the Punjab, Malwa and Mathura. Likewise a section of the Hunas or Huns had migrated to Europe and caused the downfall of the Roman empire. Those who came to India exterminated the rich monasteries of Gandhara and the great university of Taxila. Soon after A. D. 500 the Huna King called Toramana subdued the land between Malwa and Gandhara and even conquered a part of Malwa from the Guptas. His son Mihirakula (C. A. D. 530) known for his cruelties to the Buddhists, was defeated and captured by Bālāditya, a Buddhist monarch of Magadha, but was later allowed to take refuge in Kashmir. And after a while Mihirakula subdued Kashmir, Gandhara and Punjab and ruled the kingdom with Sakala (Sialkot) as its capital. However, he was once again defeated by a confederacy of native kings headed by a king of Malwa called Yasodharma. Shortly after the death of Mihirakula the power of the Huns in India began to decline and they soon assimilated into the Hindu fold.

During the early centuries of Christian era nomads from the steppes of Central Asia poured down and overran many parts of Asia and Europe contributing to the downfall of Persian, Roman and Gupta empires. Europeans called these Asian nomads as Huns, Persians as White Huns or Ephthalites, and Indians as Hunas. These nomads are said to be the successors of *Hiung-nu* of very early Chinese history. The word Hiung-nu means common slaves and was used by the ancient Chinese to call the nomads. Bury holds the view that the word Huns is only a Greek corruption for Hiung-nu. Parker states that Hiung-nu were the predecessors of Huns as well as of the later Turks and Mongols. The homeland of the Hiung-nu is said to be the *Ordos* region comprising the dry barren tract of territory in the provinces of Chin Li and Shen Si. Parker says that the word Ordos is frequently used in the annals of Turks to mean the encampment of Turks. According

to the same writer *Ordu* is used in the sense of palace of the chief (Khan) or a collection of tents. Howorth points out that the word *Ordo* was used by Moghols, meaning a horde. However, Ordos represents, as made clear by Miss Puspa Niyogi, also a definite region which is connected with the annals of the Hiung-nu people in the north of China.

King Yasodharma is known from one of his inscriptions at Mandasor (A. D. 533–4), his capital, to have reigned over a kingdom larger than that of the Gupta monarchs. Hinduism received patronage from Yasodharma.

Prabhākara Vardhana, ruler of Thaneshwar and one of the native kings who waged repeated wars against the Huns, made an alliance with Maukhari King, ruler of Kanauj by giving his daughter Rajyasri in marriage to the latter. After the death of Prabhakara in A. D. 605 the rulers of Bengal and Malwa attacked Kanauj, slew its ruler and imprisoned Rajyasri. The eldest son of Prabhakara named Rajya-vardhana hurried up to the relief of Kanauj and defeated the King of Malwa, but was treacherously slain by the King of Bengal named Sasanka. Harsha Vardhana (A. D. 606–647), a younger brother of Rajya Vardhana who was only seventeen years old, successfully led an army to rescue Kanauj and drove away the enemies from there. Then he searched for his sister and found her in the Vindhya forests where she had fled after her escape from prison and took her with him to Thaneshwar and ruled the kingdom. He also ruled Kanauj on behalf of his sister.

Harsha is said to have mobilised a large army of fifty-thousand infantry, twenty-thousand cavalry and five thousand elephants with which he subdued almost the whole of North India up to the Sutlej in the West within six years. The King of Assam entered into alliance with him. He could not push on the expedition southwards as he was met and defeated by Pulakesi II, the powerful King of Deccan, on the banks of Narmada. Hiuen Tsiang, a Chinese pilgrim testifies that

Harsha and his sister were great patrons of Mahayana Buddhism. Once in five years Harsha spent huge sums of money by distributing to the *bhikkus*, *brahmins*, the poor and orphans assembled on the occasion.

In the South, Chera monarchs ruled on the Malabar Coast among whom Udiyanjēral (C. A. D. 130) is the first known ruler. When the Satavahana empire began to decline it was divided among the Chutus in the south, Ikshvakus in Andhradesa and Abhiras in the north-west. However, the descendants of the Satavahanas continued to rule in Madhya Pradesh while the Pallavas emerged as a power in the south-east with Kānchipuram as their capital. The Pallava history is opened by the three copper-plate grants of Skanda Varman inscribed in Prakrit and dated A. D. 325–350. Another kingdom to rise in importance was Pandya in the far south with Madura as its capital and Nedunjeliyan said to have ruled about A. D. 210 was one of the early kings of the kingdom. In the south-west Deccan the dynasty of Kadambas, claimed to be a brahmin family, rose to power. Their first king was Mayurasarman (A. D. 345–360) who was succeeded by Kangavarman (A. D. 360–385). The language employed in the earliest Kadamba inscription is Prakrit and the inscription is found engraved on a pillar below a shorter inscription of the Chutus.

The southern part of the Mysore territory formed the kingdom of the Gangas and its first ruler Konganivarma is placed about A. D. 400. The Chalukya dynasty of the Deccan was founded by Pulakesin I (the great lion) who fortified a hill close to Bādāmi into a great fortress in A. D. 543-544 and performed a horse sacrifice after proclaiming his independence. His son Kirtivarman I (A. D. 566–567) enlarged the kingdom by fighting against the Mauryas of Konkan, the Kadambas of Banavasi and the Nalas of Bastar. It was a king of this line named Pulakesi II who had defeated Harsha. In A.D. 625-626 King Pulakesin sent an embassy to the court of Persian King Khusru II and the courtesy was probably returned.

The *Kelala Puta* of the rock edict (ascribed to Asoka ?) seems to be the same as the *Caelo Bothras* mentioned by Plini (as the name of the king who ruled over west cost in A. D. first century) in the first century of the Christian era. The change seems to be from Kelala Puta (Prakrit form) into Kerala Putra (Sanskrit form) and the latter in its turn into *Chera-man* (Dravidian form). Likewise, as we have already seen, *Pahlava* (Pehlava) became *Pallava* which in turn became *Tondai*. Thus Pallava king became *Tonda-man*. The epigraphical evidence in South India shows that the southern rulers first employed Prakrit, then Sanskrit and finally Dravidian languages.

Early Dramas

The regular theatre probably came up not much earlier than 300 A. D. *Svapnavāsavadatta*, a Sanskrit dramā of Bhāsa (C. A. D. 300) seems to be the earliest drama now extant in the original form or in a form very near to it. Many plays passing under his name are not accepted by scholars as written by him. Sūdraka (C. A. D. 350) wrote his fascinating play called *Mricchakatika* (The Clay Cart) in Sanskrit. It is a story of a courtesan's love with a Brahmin merchant in adversity. The poet is said to have adorned the court of a King of Ujjain. Bharata (C. A. D. 350) wrote a treatise on rhetoric and dramaturgy called *Nātya-Sāstra* (Art of Dancing) which is a book of high authority for later aestheticians to draw upon with profit. In the work he has made references to dramas like *Samudra Mathanam* and *Tripura Dāham* while explaining the art of dancing. Bharata is revered as a sage and is mentioned by Kalidasa.

Artha Sastra

Artha Sastra is a famous metrical work on economics, polity and law written by Kautilya. Kautilya has mentioned that in composing the Artha-Sastra he was guided by the

contemporary practice of states as well as the ancient lore. The work contemplates an elaborate bureaucracy divided into departments with graded heirarchy of urban and rural officials with well-defined duties. Cultivable land was held in parcels by individuals as estates while forest lands and pastures were utilised in common. The infantry were organised in battalions consisting of thousand men each and each battalion being constituted by companies of hundred men and a company itself being formed by squads of fen men. Bows and arrows, javelins and broad swords were the arms of the infantry. Chariots, horses and elephants were employed in the army.

The palace of the king was surrounded by a wall with hidden passages and with apartments of women, tanks and gardens in the rear. Kautilya exalts the royal power by holding that the king's edict has the highest validity in its own nature, though Sathapatha Brahmana, an earlier scripture, emphatically states that kings are not entitled to make any laws or modify the earlier ones.

The civil disputes and a section of criminal offences such as violence and assault were tried by the courts called the *dharmasthiya* which were held by three ministers *(amatyas)* assisted by three learned Brahmins. Appeals right up to the king's court were allowed. Forced labour, whipping, mutilation, and death with or without torture were the punishments given. Another class of courts called *Kantakasodhana* (removal of thorns) were presided over by three amatyas or Pradeshtries who were aided by spies. They dealt with all political offences and complaints of misconduct of officials and occasionally cases of theft, burglary, forcible entry, poisoning and murder.

The Brahma, Prajapatya, Arsha, Daiva, Gandharva, Asura, Rakshasa and Paisacha were, according to the Arthasastra, eight kinds of legal marriages and they were defined exactly as some other law books. The man and woman attained majority when they became sixteen and twelve years

old respectively. Divorce can be obtained by mutual consent. An abandoned wife had a claim to maintenance from her husband according to the means of the husband till she was able to live independently. The custom of Niyoga and polygamy was in vogue. Woman had no claim to inheritance of property except to the *Stridhanam* and jewellery and some bronze plates of her mother.

Artisans, markets, the working of mines and factories, irrigation and waterways, navigation, fisheries, slaughter-houses, trade and commerce, and taxation and revenue are discussed in the Artha-Sastra. In the book are mentioned the weights and measures which were in use in India probably in the fourth century A. D. Chinapatta, silk from China, is also referred to.

After an elaborate discussion on the date of Kautilya Prof. Winternitz has assigned him to the third century A. D. Likewise, Meyer in his introduction to *Das altindische Buch Vom Welt und Staataleben Das Arthasastra des Kautilya* is inclined to give a later date to Kautilya. It has been pointed out that Kautilya quotes Bhasa. The verse beginning with '*Navam Sarāvam*' is found both in *Pratijna Yaugandharāyanam* (fourth *Amkam*) of Bhasa and Arthasastra (third chapter, tenth *Adhikaranam*) of Kautilya. Kautilya's remarks such as '*Apesha slokau bhavatah*' and '*Atra sloko bhavati*' clearly show that he quotes Bhasa. In about A. D. 320 Chandra Gupta styled hismelf as *Chakravarti* (emperor) probably from which, according to the writer, Kautilya had his idea of the *Chakravartikshetra*. Hence about A. D. 350 may be a probable date for the composition of Arthasastra. Kautilya's mentioning of temple is also a pointer to the chronology.

The famous *Panchatantra* (The Five Diplomacies) contains didactic fables numbering 87. This seems to be after the famous fables of Aesop, a Greek slave mentioned by Herodotus, which were traditionally handed down from the

advent of the Greeks into India. The panchatantra came to be translated into Pahlavi in the sixth century A. D. From Pahlavi it was translated into Syriac in A. D. 570 (under the title of *Kalilag* and *Damnag*) and into Arabic in the eighth century as the Fables of Pilpay. The Arabic version spread through the Islam world and reached Europe. It was translated into Greek, Latin, German and English. Lin-Yutang says that the Panchatantra was probably known to Shakespeare and may have inspired the similar stories of Boccaccio.

In the prologue to the book the teacher, who taught these fables to two princes and made them wise as per the request of a king despairing of teaching these two dull boys, is said to be one wise Brahmana named Vishnusharman with a reputation for competence in numerous sciences. Lin-Yutang says that it is possible that Vishnusharman was the real author of the book. Some name him as Vishnugupta. Scholars have identified Vishnugupta with Kautilya and Chanakya, the latter being his nickname. In the famous political drama called *Mudra Rakshasa* of Visākhadatta of 5th century A. D. Chanakya is narrated as the minister of Chandragupta Maurya. This has led some scholars to assign Chanakya to the fourth and third centuries B.C. The plot of the drama should either be taken as a poetical device or as alluding to Chandragupta of the fourth century A. D.

The Indian tradition of political philosophy or political science culminated in the works of Kautilya. He was aided by the works of his predecessors, Brihaspati and Sukra. Our fine tradition of political philosophy equals that of the Europeans ranging from Plato's *Republic* and Aristotle's *Politics* to the socialist works of Laski. The works on political philosophy generally describe the origin of state, the nature of sovereignty, the conflict of freedom and security, and the rights of individuals. If there is the possibility of our ancient writers having been influenced by Plato and

Aristotle, there is the equal possibility of almost all the later Western writers as Hobbes, Locke, Rousseau, and John Stuart Mill having been influenced directly or indirectly by Kautilya since his Panchatantra was known in the Western world by the time. To our fathers and grandfathers the works like those of Kautilya offered guidance about how one should conduct oneself as an individual and as a citizen. The writings of Kautilya had an influential role in shaping the later history of India.

Samkhya-Karika

Isvarakrishna (C. A. D. 350) wrote Kārikas (non-poetical verses) on the *Shashti-Tantra*, which came to be known as *Samkhya-Karikas*. The Samkhya-Karikas contain sixty-nine or seventy *verse memorials* with three supplementary ones, also ascribed to the same author. The passages occuring among the later *Samkhya Sutras* are almost literally taken from the Karikas. Alberuni was acquainted with the Karikas as well as the commentary of Gaudapada on it. The Samkhya-Karikas exist in a Chinese translation possibly made by Paramartha (Kan-ti, literally meaning true truth) who was a Tripitaka law-teacher of the Khan dynasty, A. D. 557 to 589. Paramartha went to China in about A. D. 547 during the rule of the Emperor Wu-ti of Southern China. He is said to have made twenty-eight translations of the work and the name given to the twenty-seventh in Chinese meaning the *Suvarna Saptati-sastra* ('the Golden Seventy Discourse') is suggested to denote the number of verses in the Karika.

Pramana Samucchaya

The *Pramāna Samucchaya* was written at Vengi by the Buddhist logician Dingnaga (C. A. D. 350) who is said to be a native of Kanchi. He is referred to by Kalidasa. He is said to have met one Isvarakrishna, perhaps the author of Samkhya-Karikas, at Vengi. According to Vachaspati Misra (10th

century A. D.) Dingnaga interpreted Aphorisms of Gautama in a Buddhist sense. Vasubandhu is a Buddhist writer of the same period.

The Upanishads

Each of the four Vedas comprises four parts. The first part contains the *Mantras*, the second *Brāhmanas*, the third *Āranyakas* and the last *Upanishads*. The Mantras are hymns in praise of gods originally sung in sacrificial rituals. The language of the hymns are archaic and are much older than the other parts. The Brahmana is a prose treatise on sacrifices commenting upon or elucidating the proper use of the Mantras that are employed during the sacrifices. Though the Brahmanas possess difficult words and idioms the style of the Brahmanas approach to the later classical style of writing. The Brahmanas also consist of Vidhis (injunctions) and Arthavadas (glosses). The injunctions permit to do a thing that was not done before, and Arthavadas explain the inner meaning of certain things or stories. The Aranyakas or forest (grove) treatises supplant the external rituals with symbolic meditations. The Upanishads are philosophical discourses written in prose and occasional verse and are appended to the Aranyakas — certain chapters of the Brahmanas. The Upanishads are possessed of a dignity of style and sonorousness of diction.

The first three parts are known, from the very early times, as *Karma Kanda* (work portion) and the fourth as *Jnana Kanda* (knowledge portion). The Upanishads are also known as *Vedanta* (the end of the Vedas). Really, the last three parts form the three parts of Brahmana and the author of a Brahmana is probably the author of the Upanishad (literally meaning 'sitting near devotedly') attached to it.

The names of the ten important Upanishads are the *Isa* (attached to 40th chapter of the Vajasaneyi Samhita), *Kena*, *Chāndogya* (attached to the Sama-Veda), *Kāṭha*, *Prasna*,

Mundaka, *Māndūkya* (attached to the Atharva-Veda), *Brihadāranyaka* (attached to the Satapatha-Brahmana), *Aitareya* (attached to the Rig-Veda) and *Taittiriya* (attached to the black Yajur-Veda). Isa-Vasyopanishad was probably written by Vajasaneya, Brihadaranyaka Upanishad by Janaka, Taittiriya Upanishad by a descendant of Bhrigu and Chandogya Upanishad by a follower of Narada. The sage Bhrigu is mentioned in Taittiriya, Manu is mentioned in Katha and Chandogya, Yajnavalkya is mentioned in Brihadaranyaka, Narada is mentioned in Chandogya and Gautama is mentioned in Katha.

The Isavasyopanishad consists of eighteen stanzas and gets its name from the opening word of the text *Iśavāsyam*. The Kenopanishad is named after the first word in the Upanishad, namely *Kena* (by whom). Prasnopanishad is called so because it consists of questions (*Prasna*). Mundakopanishad consists of three parts named *Mundakas* and it derives its name from these Mundakas.

The following sentences of Max Muller will show the nature of the Upanishadic teaching: "With us philosophy always means something systematic, while what we find here (Upanishads) are philosophic rhapsodies rather than consecutive treatises. Possibly, if we know more of the utterances of such men as Heraclitus or Epimenides in Greece, they might show some likeness to the outpourings of the authors of the Upanishads....We see that highest wisdom had already been fully elaborated in the formula of *Tat tvam asi*, Thou art that, that is, thou, man, art not different from that divine nature which pervades the whole world, as salt pervades the sea. You cannot see it, you cannot handle it, but you can taste it and know that, though invisible, it is there. That divine essence, that which is alone true and real in this unreal or phenomenal world, is present likewise, though invisible, as the germ of life in the smallest seed, and without it there would be no seed, no fruit, no tree, as

without God there would be no world. That this ancient wisdom should be so often mixed up with what seems to us childish and absurd, is as true as it is difficult to explain." He also wrote, "In fact, there is still plenty of work left for those who come after us, for with all that has been achieved we are on the threshold only of a truly historical study of Indian philosophy and literature."

Devotee Hindus regard the Upanishads as holy scriptures. The famous German Orientalist, Deussen says that, "in the Upanishads they (the sparks of philosophic light) burst into that bright flame which is able to light and warm us today." Schopenhauer writes: "In the whole world there is no study so beneficial and so elevating as that of the Upanishads. It has been the solace of my life—it will be the solace of my death."

A great philosopher called Bādarayana has systemised the Upanishadic thoughts in his famous treatise called *Brahma-Sutra* which we shall see later. Gaudapada's Karika a commentary on Mandukya, is famous. Sankara's commentaries on the ten principal upanishads are well-known. More than hundred upanishads are said to have known, but the above-mentioned ten upanishads are considered to be the most important ones. These ten principal upanishads are likely to have been written down during the period between the first and the fourth centuries A. D.

Indian Contact with Zoroastrian Scriptures

The general evidence is that the Zend-Avesta containing the teachings of Zarathustra (who was called by the Greeks as Zoroaster), was finally codified at least under the early Sassanid ruler of Persia known as Sha-puhar II who ruled from A. D. 309 to 338. The language employed is Zend, the ancient East-Iranian and purely Aryan language, which is closely related to the Vedic Sanskrit. The inscribing of the scripture was done in a script similar to that of the Pahlavi,

an ancient West-Iranian idiom with many Semitic words used during the period of the Sassanids.

Afghanistan and the Indus Valley were ruled by Sassanian rulers of Persia for about 80 years down to A. D. 360 after conquering the territory from the Kushanas. However, the Kushana kings were allowed to rule in a subordinate capacity. During this period of Sassanian rule there was every possibility of Zoroastrian scriptures being introduced into India. The influence of the Zoroastrian legends and ideas, if there was any, upon the Hindu and Buddhist literatures may be attributed to this.

The history of Zoroastrian religion is much disputed. From the alleged fact of interference in the religion by Darius and Xerxes which is reflected in the later liturgical literature of Zoroastrianism Professor Herzfeld has assigned sixth century B. C. as the safe date for Zarathustra. India under the Achæmenid rulers does not know about Zoroaster or his religion. If the Zoroastrian teaching existed during the times of the Achæmenids it would have been known in India earlier. But there is no evidence to that effect. Zoroaster is not mentioned by Herodotus who wrote extensively about Persia. Though the Zoroastrian scriptures compiled in the third century A. D. claim the existence of their religion even during the times of Achæmenid rulers Zarathustra seems to have lived about 50 B. C. after which there is clear evidence of its existence.

During the age of Achæmenids some of the Iranian priests, referred to by Herodotus, Plato, Strabo and Plutarch as Magians, established colonies in the west of Iran, from Mesopotamia to the Aegean, existing there up to the Christian epoch. They interested themselves mainly in astrology, though they were diviners, sorcerers, magicians and interpreters of dreams. (The word *magic* is derived from the name of the Persian *Magi*.) They adopted the Aramean language and came in contact with the ancient Semitic teachings. Probably

one of them named Zarathustra went back home and preached in East Iran the new teaching which came to be called Zoroastrianism.

Zarathushtra, who is said to have lived in Eastern Iran was a champion of 'the cattle-tending husband-man' against barbarian nomads. He thought that he himself was called by Ahura Mazda to save his people from magic, ritualism, devil-worship and polytheism. The old gods called *devas* (Vedic deities) are mentioned in Zoroastrian scriptures as evil spirits. Zarathushtra believed that cosmic order was sustained under the will of Ahura Mazda (Ormuzd). Historians say that the idea of cosmic order was probably instigated by the revealing uniformities in the movements of stars and planets observed by the Babylonian astronomers. One great landed noble-man called Vistapa patronised his teachings which eventually became the creed of new church under the Arsacid rulers. The Avestan Nasks were mainly the works of his followers.

The inscription on the rock of Behistun attributed to Darius reads: "By the grace of Ahura-Mazda these lands have conformed to my decree....this land of Persia which Ahura Mazda has entrusted to me....by the will of Ahura-Mazda it fears no enemy." If the genuineness of the inscription stands scrutiny all that we can say is that Ahura-Mazda as a deity was known in Persia in the sixth century B. C. or the inscription cannot be ascribed to Darius. And A. C. Bouquet says that "it is cleâr, however, that the name of Ahuramazda is not his (Zoroaster's) invention, since it occurs in an Assyrian inscription of a much earlier period." It is probable that Zoroastrianism originated from the Assyrian culture and perhaps developed with the aid of Judaism. In the Zoroastrian religion is also found the influence of local religion of nature worship and Buddhism.

The Zoroastrianism teaches of the eternal struggle between the Spirit of Evil and the God of Good. The myths

contained in the Avesta such as the tales of the creation of the universe in seven days, the two parents of all human beings, the Garden of Eden and the Fall of Man as well as the story of the Flood are found in common with the Jewish, Christian and Muslem scriptures. Similarly, the Zoroastrian doctrines of the immortality of the soul, the final Judgment and the resurrection are familiar with Jewish, Christian and Muslem religions. Under the Supreme God are *Amesha Spentas* (satellites) who are inferior divinities deserving no worship. In the later Zoroastrianism reference to the evil spirit called Ahriman is found. In a scientific treatise, all that we can say is that the Zoroastrianism is essentially Semitic in character. Zoroastrianism seems to have borrowed even the names of demonology from Judaism.

Legends about the miraculous virgin birth of Zarathustra and the attempts made to kill him by a Turanian prince, like the Herod of the Christian story, and his revelation and his success against the temptations made by Angra Mainyu, the Lord of Evil, have their parallels in the myths of many other religions. As Persia soon became a Christian and afterwards a Muslem country there are very few adherents to Zoroastrianism left in Iran to-day apart from about one-hundred-thousand Parsis in Bombay who are the descendants of Zoroastrian immigrants from Persia. The complete writing down of the Avesta in the extant Pahlavi script was done in about the middle of the sixth century A. D. under a later Sassanid called Husrav I. The coins of Kaniska are said to reproduce figures of Zoroastrian deity.

The Advent of Christianity

The Christian religion was introduced into South-West India, according to A. C. Bouquet in the fourth century A. D. and the affiliations of the Christian community founded there were with the church of East Syria and then with Persia. Bouquet holds the Indian tradition about Apostle Saint Thomas,

which claim him as the founder of a Christian church on Malabar coast in the year A. D. 52, as a sheer legendary one, which, according to Bouquet, may have possibly sprung from a Malabar tradition of a trader named Thomas of Jerusalem or Thomas Cannaneo who in A. D. 345 aided to send a *church* to India. However, till the advent of the Jesuits in 1599 the Christians of Malabar coast recognised the church in Persia which followed the teachings of bishop Nestorius. T. K. Joseph of Travancore who made an elaborate and penetrating study of the Thomas traditions has also dismissed the tradition from being accepted for history. He has pointed out that even the legends regarding the martyrdom do not agree themselves and about seven original burial grounds of the Master at different places and countries as being claimed. T. K. Joseph cites a Namboodiri formula *Kali rauravam devarajyam* to indicate that according to the Namboodiri record the Christians (Maplahs) came to India in A. D. 317. He interprets the tradition about the conversion of *Cheraman Perumāl* (also called *Palli vāna Perumal*) to Buddhism as a conversion to Christianity since a statue of the Perumal with a cross (A. D. 317–346) is, according to him, found. Cosmas of Alexandria who visited South India in A. D. 522, found a Nestorian church at Quilon and another in Ceylon. Christian community in South India was established by immigrants from Baghdad, Nineveh, Jerusalem and other places and was strengthened by local converts. At this early period the community was called Nasrani, the Arabic name for Christians.

Christianity is a religion that grew around the teaching and personality of Jesus of Nazareth. Nazareth is a well-known ancient town in North Palestine. In a very early New Testament in Roman, as pointed out by Professor J. M. Creed and Dr. H. D. A. Major, Joseph and Mary are spoken as 'his parents'. Jesus belonged to the community of Jews who were Semites like the Hebrews. Jesus of Nazareth was born about six years before the date fixed as the first year of Christian

era and was crucified in A. D. 29, in his thirty-fifth year. And if one is to believe the canonical gospels, he was born at Bethlehem (literally bakehouse), a small village near Jerusalem.

The Christian movement was sprung from the Jewish monotheism and it proclaimed that the whole world was the self-expression of the One Good God and the highest form of self-expression for mankind was to be found in the *past*, *present* and *future* career of Jesus. It also affirmed that human life on earth has inherent consequences for weal or woe and the judgment and decision upon each individual soul rested in Jesus as being the representative of God. So it called upon all human beings without exception to become members of a new Fellowship, so that they might lead a new sort of life by which mankind might be regenerated. The communion of each individual with the One Good God can be attained through the personality of Christ. ('He that hath seen me had seen the Father.')

Man, according to the Christian doctrine, is a little lower than God (Ps. VIII). He is made in the image of God (Gen. I). The spirit of man is the candle of the Lord (Prov. XX. 27). Man needs God and he cannot be all that he ought to be or fulfil his grand possibilities apart from the life of God. The talents of a man are *gifts*. ['What hast thou that thou didst not receive?'—St. Paul's famous phrase (I cor. IV).].

Christianity strongly and firmly believes in the continuance of the conscious experience of individuals beyond the grave, though they are not authoritatively tied to an elaborate and precise forecast of it. When one is tempted towards a wicked deed, he is to make the identification of himself with the Person of Jesus, who purposefully sacrificed his life, by which he will be emptying himself of the wrong impulse and filling him with new life, or *grace*, technically called. But man is in duty bound to submit to the Divine action, and to partake of the reparation by his repeated self-identification with it. 'This appropriation of and self-identification with the action

of God in Jesus is referred' by Protestants as *justification by faith*, and by Catholics as *assisting at Mass or the Eucharist.* Christian religion describes God as the Self-extent Supreme Being, Self-limited Parent, and the Wise, Loving and Holy. Communion and reconciliation with this Self-limited Parent are the core of the life of all who live Christianly. A. C. Bouquet says that Jesus himself might not have advocated the efficacy of petitionary prayer, though a large section of converts who were accustomed to a belief in petionary prayer for blessings would have interpreted the sayings of Jesus as the endorsing of their habits and might have even corrupted some of the Gospel records.

The great impetus to the teaching was provided by the great personality and career of the Teacher. The attraction of Jesus for the hearts of the people and the victorious achievements of his career were interpreted by his followers as 'the culmination of a Supreme Act of God in which Jesus' deliberately chose the Cross, and not a sheer martyrdom which was thrust upon him. The orthodox claim is that Jesus rose bodily from the tomb rendering it empty, and transformed his physical integument wonderfully and suddenly, while the view of others is that from the tomb there came up a new spiritual Jesus, who has ever since existed among his followers by whom he is known and felt in daily intercourse.

As, at the time, Jews were a great maritime community with contacts with various Mediterranean countries a new religious movement sprung among them could easily spread itself in many countries. The new religion of Palestine found adherents from the Jewish diaspora, spread to Antioch in Syria and travelled into Europe through Asia Minor. But by the second century A. D. the Jews became the bitterest enemies of the Christians as the unique position claimed for Jesus conflicted with their stricter monotheism and as a connection with Goyim in fellowship and worship was also repugnant to the nationalist Jews. According to an estimate

made in A. D. 1920 there were about 564 million Christians out of the then world population of about 1646 millions.

The old religion of the Hebrews who were themselves Semites demands the man wholly and absolutely to set his will towards the One and the Only God against the Many or the Manifold, even to the end of martyrdom. This conception of God forms the background of Christian theology as well as the basis of Christian character and conduct. The Hebrews practised a polydæmonistic cult similar to that of the nations around them with the addition of a great god named Yahu or Yahoh who is also sometimes called El. But Hebrew prophets preached a pure monistic religion which inspired the Christian religion. The Bible (or the New Testament) is the veritable vehicle of Christianity. The Old Testament (the Hebrew Bible) is found to show affinities with the general zone of Bronze-Age religion and particularly with the early Syrian polytheism as is evidenced by the recently discovered Ras Sharma tablets. The conservative view is that when mankind was ready for unitary conception of Deity, God intervened and spoke through the prophets such as Moses while the anthropologist view is that the prophetic monotheism may have been due to the reflection of political imperialism on religion or to the coming of Proto-Nordic peoples like Mitanni from north-east and hybridization between the peoples of Mesopotamia, Syria and Egypt. But Sellin and Freud have suggested an Egyptian origin from the fact that the form of the name Moses is Egyptian, a suggestion which is not accepted by Bouquet.

Immortality as a prolongation of earthly life seems to be fully conceived first by the ancient Egyptians. Their Akkadian and Sumerian contemporaries had only a very vague idea about Immortality. The remarkable preservation of the dead bodies buried in the desert and the continuous supply of food and drink to them by the ancient Egyptians suggest a belief in future life. Scholars say that the Egyptians had a notion about a '*judgment of souls*' as early as in the Pyramid Age.

To get a favourable verdict rituals and spells were considered by them as necessary factors. Moral virtues were also thought by them as helpful. But Childe states: "Still less an Egyptian or a Sumerian pray to his god as Christians do to help him to be honest, just or charitable."

The conquest of the great imperial King Sargon of Akkad over the independent city-governors of Sumer and his imposing legislations overriding local customs had their repercussions in the philosophical thought of the ancient people of Western Asia in as much as they thought it better to regard the world order being ruled by a high god whose legislation formed *Fate*.

Gordon Childe says that barbarians took magic rituals such as initiations and purifications straight from *Totemism*. Among the ancient Jews the uninitiated, being impure, were threatened with hell.

According to the Hebrew Bible or Old Testament the Deity is omnipresent and transcends the entire universe and therefore localising Him by the use of images indicates the weakness of people. He is not pleased in ritual sacrifices performed by men since He is the perfection of moral goodness, majesty and infinite holiness. Practice of right conduct, following of the divinely ordained moral law, and showing goodwill towards his fellow-men are the only sacrifice the Deity wants from man.

The exile of Hebrews caused by a Babylonian King cut off the Hebrews for some time from the sacrificial ritual performed from their temple and so under the influence of prophetic tradition supported by the circumstances the exiles developed a practice of what has been called a *Word-of-God service*. Some of the exiled Hebrews when they were released, it is said, brought back to Palestine this 'Word-of-God' service, thus paving the way for domestic worship.

The Christian Church began as an off-shot of Judaism and recognised the Old Testament as its basic scripture. But after the first council of Jerusalem, it discarded the eating of

Kosher food and the rite of circumcision, though it practiced the Jewish methods in making proselytes. The Christian church adopted Baptism, a Jewish custom, as the initiation rite of the new fellowship and its rite of communion is found to have been developed out of a religious meal held by Jews on the eve of the Sabbath. The Bible accounts of the Creation of the World, of Adam and Eve, and of Flood are found to be similar to the Babylonian legends. These legends are supposed to be held in common by all the ancient Semitic peoples. The tales of Moses and of Samson have their parallels in Sumerian and Babylonian stories. Stories, more owned by Jewish race, developed with the story of Abraham.

Scholars who have analysed the Christian documents have said that the great early success of the Christian religion was due to the proclamation of the career of Jesus by the Christian apostles as a supreme Act of God. According to A. C. Bouquet, at first Jesus was felt to stand simultaneously on both sides of the gulf separating Creator and creaturely and subsequently accounts of an alleged miraculous birth, or of a series of nature-miracles were circulated. From a perusal of documents scholars have arrived at the decision that the story of the Virgin Birth of Jesus appeared after the year A. D. 70 and was much modified by A. D. 150. Plato was requted to have been virgin-born and was even described as the son of Apollo. Among the Jews there was a belief that the crucified Jesus would come back in majesty to win over his enemies. Bouquet points out that the narration of quasi-sacrificial death of Jesus, and his rising from the tomb as the culmination of the above belief.

The earliest figures of Jesus, the Good Shepherd, are beardless and idealised beings of the types of Orpheus or Apollo. Later portraits are found to be assimilations to the types of Zeus or Dionysus. Professor A. B. Cook thinks that the great noble and dignified statue of Zeus Olympius, by Pheidias, must have influenced the artistic form of Jesus, historical as well as the Deity incarnate.

From about A. D. 300 onwards an important feature within all parts of Christian community is the growth of celibate asceticism. This has been attributed, by A. C. Bouquet, to oriental life-negating influences. But in India the first celibate ascetic teacher known is Sankara of the ninth century A. D., though Suka, son of Badarayana (C. A. D. 450) is also said to be a celibate ascetic teacher. However, there is an equal chance of the influence being vise versa. The self-tortures of the Christian ascetics were methods resorted to repress their instinct to procreate.

The writings of Saint Paul, the bilingual Jew of Tarsus, in Greek which were collected somewhen about A. D. 139 have a unique role in moulding the Christian thought. The later writers such as Augustine the Great, Luther and Calvin are deeply indebted to him. Childe has pointed out that to explain and defend their creed before the middle class and state officials the Christian leaders had to formulate the emotional content of religious experience in terms of analytic reasoning for which they infused into the simple teachings of Jesus Greek science and logic as expounded by Aristotle and the geocentric astronomy of Hipparchus. The Christian command, 'Love thy neighbour as thyself' and its conception of the Brotherhood of Man provided an international ideology suitable to the then growing world economy.

The Yogachara School of Buddhism

Asanga and Vasubandhu (C. A. D. 350) were two Brahmans who took to Buddhism and founded the Yogachara (teaching or practice of yoga) school. These two genius brothers elaborated and developed the *Vijnana-Vāda*, the doctrine of Mind-consciousness and gave a magnificent presentation of it. All in the world except consciousness is unreal and thus suffering (*dukha*) belongs to illusion. Even though, a person is to act as if the sufferings are real and help the sufferers. A central *Alayavijnana* contains the suchness

(*Tathata*) of all things in which also the consciousness is contained. The individual consciousness is a part of the manifestation of Alayavijnana. This inter-relation is said to be an advance on the *Lankāvatāra Sutra* composed about this time, for the sense of mystical union is absolute in the Yogachara school. (The names of Kapila, Kanada, Brihaspati and Akshapada are found in the Lankavatara).

Several of the basic principles of the Mahayana school were developed by this subjective idealism. The two brothers might have been inspired by the Upanishadic thoughts. The writings of Asanga, Vasubandhu and Dingnaga, marked by their polemic zest in the refutation of rival systems, are said to have anticipated much of the method and thought of later advaita philosophers such as Gaudapada and Sankara. According to Christmas Humphreys the Yogachara school was founded about the fourth century A. D.

Works of Kalidasa

Kālidāsa is considered by all to be one of the world's greatest poets. The *Ritusamhara* (description of the seasons), the *Megha-dūta* (cloud messenger), *Kumāra-sambhava* (the birth of the boy) and *Raghuvamsa* (the House of Raghu) are his fascinating poetical works. His grand dramatical works are *Mālavikāgnimitra*, *Vikramorvasīyam* and *Sākuntalam* of which the last even in translation evoked the warm-hearted praise from the great German poet Goethe. The *cantos* after the eighth of the extant Kumarasambhava are said by scholars not to be of his. In Kumarasambhava Kalidasa's description of the scene where Uma approaches Siva is said to be the best by par excellance. Her personal charm and raiment are graphically narrated while 'every little movement in the tense situation awaiting Siva's reciprocity to her boundless love are marvellously portrayed.' Ānanda Vardhana, a later writer on poetics, has condemned the passages describing the love-sports between Siva and Pārvati in the eighth canto of Kumara-

sambhava since they violate one's sense of veneration for the Godly pair. The words, '*Janaka tanayā snāna punyōdakēshu*,' and '*Ityākhyātē pavana tanayam Maithilīvōnmukhī sā*,' used by Kalidasa show that his Megha-dūt was modelled after the Hanuman—message of the Ramayana.

Kalidasa is mentioned with Bharavi as a famous poet in an inscription dated A. D. 585-6 (507 Saka era) published by Fleet in Indian Antiquary, 1876. From the political geography of Raghu's *digvijaya* in the Raghuvamsa, particularly the location of Hūnas on the Oxus (Vankshu), and the location of the abode of the banished Yaksha in the Megha-duta at Ramagiri (Ramtek north of Nagpur), scholars have arrived at the decision that Kalidasa lived in the fourth and fifth centuries of Christian era. For a comparative chronological study, it may be stated, that Kalidasa has mentioned Vasishtha, Visvamitra, Agastya, Atri, Marīchi, Manu, Angiras, Bharadvaja, Parasurama, Gautama, Ikshvaku, Kashyapa, Brihaspati, Saptarshis, Subramanya temple, and the Hindu pilgrim place of Gokarnam. In the Malavikagnimitram he has mentioned *Bharata Nātya*. He has also mentioned Chakravarti and Artha-sastra and has referred to the logician Dingnaga. However, about A.D. 380 seems to be a probable date for Kalidasa. His knowledge of the folklore of Malwa and the detailed geography of the same locality is suggested to be due to his being a native of Malwa.

The name of the poem Kumarasambhava need not necessarily recall the birth of Kumara Gupta I as is claimed by some scholars, and Raghuvamsa need not be intended to extol Chandragupta Vikramaditya under the figure of Raghu as is supposed by some. Nevertheless, the conquests of Raghu seem modelled after those of Samudra Gupta. The description of the digvijaya in Raghuvamsa is in accordance with the route along the east coast followed by Samudra Gupta in his campaign to the South. Kumara is the name of god Subramanya and was used as personal names by

men and kings of ancient India as is testified by the names of Kumārayāna (C. A. D. 300), Kumāradēvi (wife of Chandragupta I, C.A.D. 300) and Kumara Vishnu (C.A.D. 300) who were born in different parts of India. The works of Kalidasa have strengthened and popularised Hinduism and the poet is only next to Valmiki and Vyasa in this field. Scholars who know both English and Sanskrit are agreed that Kalidasa and the English poet Shakespeare (A. D. 1564-1616) rank equally as poets and this shows clearly that the literary standard of England during the time of Shakespeare has been attained in India twelve centuries ago.

The Theravada Buddhism

A section of the Buddhists who called themselves Theravadins (Elders) stuck to the orthodox Buddhism. Tissa (C. A. D. 400) son of Moggali is said to have organised the Theravada section. The school came to be known as Hinayana (lesser path or little vehicle) in contrast to Mahayana. The Theravadins merely revere Buddha and follow his moral teachings, but do not worship him. The Theravada scriptures are in Pali. The Theravada school is bound by the Pali canon. It is rational and rested upon the Dharma as handed down.

According to the Theravada school a human being could acquire enlightenment by strenuous effort and he was known as an Arhat. Buddha was an Arhat. The orthodox Elders maintained that Buddhahood was attained as the result of strict observance of the Rules. Thus they emphasised Karma (work).

Scholars say that early monastic Buddhism did not allow Buddha to be represented in image as they might have thought the images would have lessened the gravity of His significance. He was always represented by symbols such as an empty throne, a wheel or the Bodhi-Tree which were deemed quite sufficient designs to portray the Master. Ancient

Egyptians seem to be against portraying gods. The ancient Egyptian sculptor charged his Sumerian colleague with representing the deity in image in human form and with making statues of high priests and city-governors of Sumer. The ancient Egyptians probably feared that the soul of a person would be attached to his image, if one was made, making the soul unable to attain heaven. However, the above-mentioned belief of the early Theravadins seems to be related to the advent of the Christianity and Zoroastrianism into India.

Probably the earliest and nearest to the original teaching is the Theravada (the Doctrine of the Elders). The Mahayana regards Theravada as incomplete or superficial teaching which the Buddha gave to those who were incapable of comprehending the more profound doctrine of Mahayana. Theravada Buddhism became the religion of Ceylon, Burma, Siam and Cambodia. In the ancient Buddhist sculptures the representation of the Buddha by symbols might have been made by the Hinayanists while the representation of the Buddha in Anthropomorphics might have been made by the Mahayanists. The anatta doctrine is said to belong to the Hinayana school.

Works of Asvaghosha

Asvaghosha was a great Mahayana Buddhist teacher whom Lin-Yutang, a great Chinese scholar, regards as the St. Paul of Buddhism and whom Ānanda Coomaraswamy has called the 'Father of Mahayana Buddhism'. He wrote the famous Buddha epic, the *Buddhacharitam* (Life of Buddha), *Mahāyāna Sraddhotpāda* (The Awakening of Faith), and *Saundarananda.* A didactic work named Sutrālankara, now surviving only in a Chinese version, is doubtfully attributed to the same poet. Saundaranandam describes the victory of Buddhist doctrines over a Prince named Nanda whose earlier career was full of weak indulgence. In the two stories of Sutralankara the King Kanishka was the hero. The Alaya-

vijnana, which was to some extent a psychological term in the Yogachara school, is replaced in Mahayana Sraddhotpada by a higher term *Butatathāta* (Suchness) which is metaphysical and cosmic. This famous little treatise is said to be an improvement of the Yogachara school.

A play in nine acts called *Sāriputra Prakaranam* which is famous for its treatment of Buddhist philosophy, is also assigned to Asvaghosha. Finally, Asvaghosha, the greatest of the Mahayana teachers is known to have written the famous attack on the caste system, the *Vajrasūchi*. The Vajrasuchi upanishad may be based upon this work. Sir Edwin Arnold's famous poem, Light of Asia, is based on the Buddhacharitam. Light of Asia ran to eighty editions in the United States of America and sixty editions in England within a few years after the work was published about a hundred years ago and sold hundred-thousands of copies.

Scholars have pointed out a close similarity in ideas and expressions between the works of Kalidasa and Asvaghosha. The style of Asvaghosha appears to have been modelled upon the style of Kalidasa. Yasodhara's approach to Siddhartha was described by Asvaghosha as 'a gait like Parvati's'. This comparison clearly shows that he wrote after Kalidasa who has beautifully described the gait of Parvati before Siva. His verses (III 13-24) are similar to Kalidasa's verses (Kumarasambhava 57-62 and Raghuvamsa VII 6-11). Some verses of Bhasa also appear in Buddhacharitam.

The Sraddhotpada is said to be translated into Chinese in the beginning of the fifth century A. D. Kumarajiva, who died in A. D. 412, is said to have translated into Chinese the works of Nagarjuna, Vasubandhu and Asvaghosha. It will be profitable to the Indian history if the correctness of the tradition about Kumarajiva's translation of the works of Asvaghosha is ascertained. Hiuen Tsang might have based it merely on the Buddhist heresay when he mentioned Asvaghosha as the Vice-President of the Buddhist Council under

Kanishka. The historicity of the two earlier Buddhist councils is impugned by certain scholars and the alleged council under Kanishka is also more probably a legendary one.

Saint Asita, Gopis, Rādha, Krishna, Rama, Sīta, Hanuman, Draupadi, God Ganesha, Ankle-bells, Purda, Tulsi-bush, Malwa's fields of sleep, Yellow robe, Raja putra, Malaya winds, Gaya, Luxmi, Sati, Mara, Kama with bow of gold, Avidya, Lanka, Parvati, Bhadra Bahu, Basava, Sruti, Smriti, Karma-kanda and Jnana-kanda are the words found in the Buddhacharitam. Asvaghosha was a Hindu born in Oudh who became a Buddhist and probably lived about A. D. 400. All his works are in Sanskrit and are written in elegant style distinguished by perspicuity.

Spread of Buddhism in China

The early Indian scholars to reach China were Kasyapa Matanga and Dharmaraksha of Scytho-Indian parentage. In their honour was built the first Buddhist monastery in China. But the spread of Buddhist religion in China was mainly due to the hard work of the great translator called Kumarajiva. His enormous output created a new wave of interest in China, which culminated in securing permission from the rulers to Buddhist laymen to become monks and to establish a Chinese branch of the Samgha. He lived in the fourth and fifth centuries A. D.

By the beginning of the fourth century A. D. the whole of Eastern Turkestan had embraced Buddhism, and Brahmi script was in common use which replaced the earlier use of Kharoshthi. The statement of Fa-hien, a Chinese Buddhist pilgrim, that Sanskrit was the language of culture in the area was testified by the later discovery of many Sanskrit Buddhist texts in various parts of the area. Many remains of Buddhist images, monasteries and grottoes and relics of Indian sculpture and painting have been traced in many places in the region. The monasteries in the cities of the country attracted many

Buddhist scholars from India, especially Kashmir, and the Gomati-vihara of Khotan was a reputed centre of learning.

It is said that Buddhism, together with Chinese writing, reached Korea about A. D. 372 and flourished there till thirteenth century, in a manner of being not completely acclimatized, when Confucian reaction gained supremacy. Kuchi was the northern centre of diffusion, inhabited by a white race speaking an Indo-European language called variously Tokharian, Kuchean and Arsi. These people adopted Buddhism early and there were many temples and *stupas* in the region at the beginning of fourth century A. D. Kumārayāna belonging to a family of ministers in India adopted a religious life and left his native place for foreign countries. He was appointed as the *Rajaguru* of the King of Kuchi and he wedded the sister of the King named Jiva. The first son was named Kumarajiva, a name combining the names of his mother and father. When he became seven years old his mother became a nun. After two years the mother and the son went to Kashmir from where Kumarajiva learned the Buddhist and Hindu scriptures.

On the completion of his studies Kumarajiva went back to Kuchi and settled in a large monastery called *King's New Monastery* expounding Buddhist texts to the people until he was taken to China as a prisoner by a Chinese invasion in A. D. 383. Kumarajiva reached the Chinese capital only in A. D. 401 owing to many enforced delays during the journey. However, in the new city he was placed at the head of a band of scholars who were entrusted with the translation of Sanskrit works into Chinese. He is said to have translated over a hundred books in a few years and died in A. D. 412. Khotan and its neighbouring places were flourishing centres of Buddhist culture till A. D. 700. A Chinese Buddhist monk called Fa-hien came to India across the Gobi Desert, visited Taxila, Mathura, Kapilavastu, Gaya, Pataliputra and Nalanda and

after a stay of nine years (A. D. 401–410) returned home by sea. Buddhism found favour in China and Korea, because it was introduced there in a Mongoloid garb.

Works of Badarayana

Bādarāyana is the reputed author of the *Brahma-Sutras* whom Max Muller has hailed as an intellectual power. This is a systemised treatise of the doctrines propounded in the Upanishads and hence it is also called *Vedanta-Sutras*. The text contains about 500 aphorisms (Sutras) divided into four chapters. Sankara, Ramanuja and Madhava have their celebrated commentaries on the text. Max Muller adds: "But we have only to waive the claim of infallibility put forward by Badarayana in favour of the Upanishads, and treat them as simple human witnesses to the truth, and we should then find in the systematic arrangement of these utterances by Badarayana, a real philosophy, a complete view of the Kosmos in which we live, like those that have been put forward by the great thinkers of the philosophical countries of the world, Greece, Italy, Germany, France and England." The passage '*Etena yogah Pratyuktah*' (By this Yoga is refuted) in the Brahma-Sutras is explained as referring to the Yoga-Sutras of Patanjali. Monier-Williams says that the Vedanta-Sutras offers many parallels to the idealism of Plato. Sir William Jones writes that Vedanta is analogous to the Platonic philosophy and that Vyasa (Badarayana) corresponds with Plato.

Mānava-dharma-sastra also known as *Manu-smriti* is a law book in verses perhaps written by the great sage Badarayana. The ancient Indian legislation is said to have culminated in the work and it is mere recapitulation of earlier laws with slight changes probably caused by the pressing needs of the time. Laws relating to religion, marriage, king's rule, criminal and civil matters, and evidence are exhaustively described in the work. Cosmogony and polity are also described briefly. Besides these, rules relating to caste obser-

vation and advice on food are contained. The work (generally known as the Code of Manu) contains 2685 verses divided into twelve chapters. The work is mainly based on the Bhrigu-Samhita described earlier. The author of the work is suggested to have lived in the north-west of India, not far from Delhi.

According to the work, Veda is the first source of Dharma (law), tradition and usages of virtuous men being the second and the third sources respectively. It enumerates eight kinds of marriage rites called Brahma, Daiva, Arsha, Prajapatya, Asura, Gandharva, Rakshasa and Paisacha. The first six are lawful for a Brahmana while the last four are lawful for a Kshatriya. The last four excepting the Rakshasa rite are said to be lawful for a Vaisya and a Sudra. The twice-born man (the initiated, that is, the Brahmana) can marry a girl of equal caste who has some auspicious bodily marks. A Brahmana who weds a Sudra girl will sink into hell and when a child is born to her by him he will lose the status of a Brahmana.

A son is to inherit the estate of his father and in the absence of a son the daughter can take the estate. A father may give his daughter in marriage even though she has not attained the proper age. If a father failed to get his daughter married at the proper time the girl can choose a bridegroom for herself. In case the bridegroom dies after the troth is verbally plighted, her would be brother-in-law shall marry her. A woman is protected by her father in her childhood, by her husband in youth and by her sons in her old age. A widow who constantly remains chaste goes to heaven after her death. The work generally rejects the custom of Niyoga as sinful, though in a short passage elsewhere it has allowed the custom. Deserting the wife for three months and depriving her of her ornaments are the punishments allowed by the author for a woman for her disrespect shown to her husband. A man can remarry only under very restricted conditions. The author's kindness towards women is explicit when he says that gods are pleased when the women are honoured. The work forbids

the use of wine drinking and eating meat except when they are necessary in the performance of a rite.

Manava-dharma-sastra ordains Chaturvarnya or fourfold social system in which *Brahmanas* (priests), *Kshatriyas* (warriors), *Vaisyas* (agriculturists) and *Sudras* (servants) have a successive rank according to the order in the society. Around the Brahmanas the other three classes revolve like satellites. The kings came from Kshatriyas and most exalted eulogies are indeed lavished on them. The distinction of one caste over the other was thought inherent as per divine appointment. After attaining some age a Brahman is to wear Yajnopavita, a sacred cord of a thin coil of three cotton threads, over his left shoulder allowing it to hang down diagonally across his body to the right hip. The work prescribes to those who aim at sanctity to repeat the Gayatri prayer at three *Sandhyas* namely sunrise, noon and sunset.

The work upholds the doctrine of transmigration of souls and its allied *Karma* (cause effect) theory. According to it one who had committed an act of sin would take the form of a vegetable or mineral; one who had committed a word of sin would take the form of a bird or beast; and one who had committed a thought of sin would take the form of a man of the lowest caste. But self-restraint in thought, word and deed leads a person to emancipation from all future births. When one dies his *gross body (sthūla-sarīra)* is burned. Then his soul enters the vehicle of *subtle body (linga-sarīra)* also described as 'of the size of a thumb' *(angustha mātra)* and hovers near the burning ground. He is called a *preta* (a departed spirit or ghost) in which status he is held to be impure and consequently his relatives are also impure. The funeral rites furnish the preta with an intermediate body and enables it to lead a temporary life in heaven or hell prior to a future birth. The preta without the funeral rites becomes a *pisācha* (foul wandering ghost) doing malignant acts against the living creatures in order to revenge for its misery. The

angushtha-matra size of the soul reminds us the ancient Greek conception of the soul described in the works of Plato.

As many contradictory views are found in the work, the European scholars were inclined to hold the contradictory passages to be of later interpolations. This need not necessarily be the case if we only understand that the Manava-dharma-sastra is the result of a bonafide attempt on the part of the author to codify the then existing laws prevalent at various parts of the country and among the various communities of the country. The question which passage shall apply to a certain community of a certain village, it seems, was left open to be decided by the presiding officer. In the work quotations from Vasishtha Dharma Sutras are numerous.

About its authorship the work gives a confused idea. It says that the work was told by Bhrigu at the instance of King Manu after giving the opening portion by Manu himself. Max Muller doubts whether the laws of Manu, in their present form, such as we now possess under the name Manavadharma-sastra written in continuous *slokas* (verses), can be older than the fourth century A. D. Perhaps the final composition of Manu's Samhita, such as we possess it, may be rendered in the fourth or fifth century A. D. by an author of some status. There are internal evidences to this effect. The writer of the Manava-dharma-sastra says that he shall try to recapitulate the ancient laws of Manu correctly as far as he can (ch. I verse 119). About a tenth of the verses of Manava-dharma-sastra are found in the Mahabharata. This fact, according to the writer, may identify the author of Manava-dharma-sastra with the author of Mahabharata (Badarayana).

As has been mentioned already Badarayana rewrote Bharata in which he contributed the much celebrated Bhagavad-gita as the eighteenth chapter. The new work containing about twenty-four thousand verses was called the *Mahābhārata*. It seems to have been modelled upon the extant Valmiki Ramayana. The text was again rewritten to

comprise about one hundred thousand verses in about the fourteenth century A. D. forming the extant version of the Mahabharata. The prologue to the extant text clearly states that the book has been rewritten more than once and at one stage it contained about twenty-four thousand verses. It also states that Badarayana is the author of Mahabharata. As the authorship of Gita must necessarily go to a great philosopher and as Sankara of the ninth century A. D. and other teachers before him have commented upon it the Gita must be the product of Badarayana. So it is true that Badarayana is the author of the Mahabharata as much as Veda-Vyasa is the author of the Mahabharata. This simple fact misled the later people to identify Veda-Vyasa with Badarayana.

However, without prolonging the discussion the results can be summed up as follows: Dvaipayana Vyasa wrote Bharata (the story of Bharatas who form the two families of Pandavas and Kauravas) in the form of a conversation between Janamejaya and Vaisampayana. The text contained, according to Macdonell and others about 8800 verses. This work is referred to by Panini as Bharata which he signifies as 'the battle of the Bharatas'. Badarayana enlarged the work putting it in the form of a narration by Vyasa (Dvaipayana). The original framework of conversation between Janamejaya and Vaisampayana is retained. His contribution includes, as already stated, the well-known Gita chapter. This enlarged text contained about 24,000 verses and came to be called the Mahabharata on account of its greatness. Legends say that Vyasa on completion of his penance composed the Mahabharata of 24,000 verses which, according to scholars, formed the extent of the Mahabharata excluding the Upakhyanas. The text referred to by Sankara is this second one. Then by about A. D. 1300 the text was again enlarged, to become an encyclopædia of Hinduism, containing about 100,000 verses. This final text has the framework of the conversation between

Saunaka and Sūta while the earlier two frameworks of the story are retained within its outer frame. Now it is claimed in the epic itself that whatever is found in the text may be found elsewhere, but what is not found there will not be found anywhere else. Who sponsored or patronised this last compilation of this stupendous and colossal work? Perhaps one of the kings of Vijayanagar or the famous Sayana himself. Holtzmann says that the revised and wholly changed third recension was of a Puranic style and did not exist before twelfth century A. D.

In the original portions of the Mahabharata, as pointed out by A.D. Pusalker, Krishna is described as a mortal hero who was a religious teacher and a counsellor of the Pandavas. The Rig-Veda, Kausitaki Brahmana and Chandogya upanishad represent Krishna as a Vedic seer. Even in the earliest parts of the Puranas he is shown as a human hero. Buddhist and Jain literatures show Krishna's human character. But in the later legends he was coloured with mythology and, like Rama, was raised to an incarnation of Vishnu. The works of Patanjali definitely show that Vasudeva Krishna was deified before his time. The Harivamsa, taken as a supplement of Mahabharata, narrates, for the first time, the early life of Krishna. Zoroastrian and Christian legends seem to have been freely used in this work. This we shall deal with briefly elsewhere.

A law book called Vyasa Smriti (belonging to Dvaipayana?) in about 250 stanzas is referred to by Apararka in his work in support of many of his conclusions. The same stanzas occur in the Mahabharata also. The author of the Mahabharata seems to be deadly against the Epicurean theory which echoed in India and found expressions in such philosophies as the anatta doctrine said to be advocated by some Buddhists. His contempt for this Philosophy is apparent as he makes a *rākshasa* named Charvaka to describe the theory in the Santi-parvan of the Mahabharata. In the disguise of a mendicant

Brahman Charvaka reviled Yudhishthira and uttered profane and heretical doctrines when the latter entered triumphantly into his capital Hastinapura. The demon was soon detected and was killed by the angry Brahmins. Presumably the doctrine was reproduced from Brihaspati who may have described it earlier. The writer does not know whether this interpolation into the Mahabharata was made by Badarayana or by someone else in the fourteenth century A. D.

The Bhagavad-gita is regarded as representing the ecletic school of Hindu philosophy. The author has harmonised and combined the Samkhya, Bhakti, Karma and Vedanta schools of Indian philosophies into one system with great perspicuity and beauty of language in the Bhagavad-gita. Monier-Williams says, "the whole composition is skilfully thrown into the form of a dramatic poem, something after the manner of the book of Job or a dialogue of Plato. The speakers are the two most important personages in the Mahabharata—Arjuna and Krishna. Arjuna is, perhaps, the real hero of that epic......The god Krishna, who is identified with Vishnu, and in this philosophical dialogue is held to be the Supreme Being himself, had taken form as the son of Devaki and Vasudeva." Perhaps by imitating the sermons of the Christ or the Buddha the author of the Gita sanctifies the above Indian philosophies. Like the Christ's showing his spiritual body to his disciples Krishna here shows his universal form to his disciple Arjuna.

D. S. Sarma has given quotations to show that the ideas and expression of the Gita compare and resemble with those of the Upanishadic verses. In many instances the Gita forms its stanzas by tags from the Upanishads. The words '*sarvopanishado gavo*' explicitly states the indebtedness of the Gita to the Upanishads. Devasthali also has shown parallelism between the Upanishads and the Gita by quoting parallel ideas and even parallel passages, but points out that the teaching of the Gita is an improvement upon the Upanishadic teachings.

S. C. Roy finds the Gita more related to the Vedanta philosophy than with the Samkhya-Yoga. This fact confirms the suggestion of the author that the author of the Brahma-Sutras and the Gita is one and the same person. In methods and aims, according to S. N. L. Srivastava, the Yoga portion of the Gita is similar to those of Patanjali's Yoga-Sutras. The Gita's rational interpretation of the theory of four castes and laying stress upon the role of the individuals in community in respect of their duties are admired by K. R. Potdar, as the underlying principles are, according to him, suitable to any ideal society. To the writer the explanation in defence of the system of four castes seems to be an attempt to reply the Buddhists such as Asvaghosha who had made a famous attack on caste system in his Vajrasuchi. The insistence on the duty (social duty) of the individual reflects the social necessity of the time. Here Asoka's famous stand against war is indirectly refuted. A man equalling to a genius of the twentieth century could not have more cleverly replied the critics like the Buddhists who attacked caste and slaughter. About Aristotle Gordon Childe says that "As a pioneer in formal logic, positive psychology, comparative anatomy and systematic biology his contributions to later science are invaluable." And he adds: "A champion of oligarchy and a defender of slavery, Aristotle appears as the mouthpiece of the class from which his patrons and pupils were recruited and has the victim of the contradictions in the economy of the city-state which were all too apparent by his day." No wonder the author of the Gita defends caste system and war.

S. K. Maitra points out that the Gita contains conflicting ideas and the chapters contradict each other. That every chapter in the Gita forms a unit by itself is the opinion of P. M. Modi. What the author really wanted was to harmonise the different systems of Hindu philosophy. The Gita describes Vedic ritualism, Kapila's Samkhya, Narada's Bhakti, Patanjali's Yoga and Upanishads' Vedanta and holds

that a devotee can get salvation by following *any* one of these systems. The war situation is cleverly taken by the author as an excuse to describe the schools of Hindu philosophy of his time. By upholding all these philosophies what the author of the Gita, the great poet philosopher, achieved is avoidance of factional rivalries among Hindus and the establishment of the all-comprehensive nature of Hinduism. The sentiments expressed in the Bhagavad-gita (the Song of the Adorable One) have exerted a powerful influence upon Indians for the last fifteen centuries. The commentaries on the text by Sankara, Ramanuja and Madhva are well-known.

Max Muller after quoting the passage, "Hear and learn from me the Supreme Soul (Kshetrajna) that has been celebrated in many ways by Rishis in various metres, and by 'the words of the Brahma Sutras', which are definite and furnished with reasons", remarks that, "Here the words '*Brahma-Sutra-padaih*' (the words of the Brahma-Sutras) seem to me to refer clearly to the recognised title of the Vedanta or Brahma-Sutras." The writer also had the same opinion when he went through the Gita long before he came across these remarks of Max Muller. Badarayana might have written the Gita in his later years while the Brahma-Sutras before that. The *Vyasa Bhashya*, a prose commentary on the Yoga-Sutras of Patanjali, is also likely to be a work of Badarayana, probably in his younger days.

The earlier name of Badarayana seems to be Krishna. His ascetic name Badarayana is probably taken in honour of Badari Narayana. He is known, in short, as Bādari. The name Badari is mentioned by Jaimini in his Pūrva-Mīmāmsa. In the Bhagavad-Gita the names of Kapila, Vyasa, Manu, Ikshvaku, Bhrigu, Janaka, Narada, Asita, Devala, Brihaspati, Ushana, and Kunti-Bhoja and Kasi-king are mentioned. The name Vyasa is mentioned thrice, but never the name Badarayana. The father of Suka was Badarayana and Suka was the teacher of Gaudapada who was said to be the

teacher of Govinda, the teacher of Sankara. According to Dr. T. M. Mahadevan Gaudapada lived before A. D. 500. In the circumstances about A. D. 400 seems to be a probable date of Badarayana.

The Idea of Nation

The cave-men did not know anything about nationality. However, they soon found themselves organised into clans. The area covered by their hunting activities began to increase as they grew in number and they penetrated amongst the others, plundering and slaughtering on their way. But when agriculture was discovered people began to settle down. Still new nomadic races infiltrated into these settled peoples though they had to meet the resistance of local combats. Slowly the contacts between the different groups of tribes resulted in a kind of symboisis which, much later, helped them to form into a community in a large territory. Common interests united them and a spirit of solidarity, now understood as nationality, grew among them. Geographical barriers became the bulwarks against new intruders.

We do not know when the people of India first began to think nationally. The Mohenjo-daro people might have thought nationally. The earliest recorded evidence is found in the *Dharma Sutras* of Vasishtha in which he thinks nationally. He defines *Āryavartha* as the region between the Vindhyas and the Himalayas. The Aryavartha of Manu also corresponds to this. The *Chakravartikshetra* of Kautilya includes the whole of India. The Indian nationality, originally confined to North India, began to comprise the whole of India after the Scythian advent into South India.

Sanskrit had a remarkable role in unifying India under a cultural unit. It was the medium of instruction for higher studies throughout India. It served as the *lingua franca* for the learned from Cape Comorin to the Himalayas. The two epics, the Ramayana and the Mahabharata had a great part

in moulding an Indian national outlook. The Raghuvamsa and Meghadut of Kalidasa also view a unified India.

In his book, 'Fundamental Unity of India', Dr. Radha Kumud Mookerji has endeavoured to prove that the unity of India has a long history and has been an element in the historic consciousness of the people of India from a remote age. He points to the river-hymn of the Rig-Veda as an expression of the ancient Hindu consciousness of Indian geographical unity. And he adds that when new settlements in Dakshinapatha or South India were made the limits of the old Aryavartha came to be expanded and consequently the old Vedic conception of geographical consciousness was supplemented by an appropriate one. Thus the river-hymn of the Rig-Veda came to be adapted in a Puranic prayer as follows: "O ye Ganga, Yamuna, Godavari, Saraswathi, Narmada, Sindhu and Kaveri, come ye and enter into this water of my offering!"

Although in ancient India the different parts of India were ruled by different kings there were paramount sovereigns who politically unified the several kingdoms of India and Dr. Mookerji to testify this cites the titles *Adhiraj*, *Rajaraja* and *Rajadhiraja* (King of Kings) frequently alluded to in the Vedic Samhitas, Brahmanas and Upanishads.

Jaimini-Sutras

The *Sutras* of Jaimini describes a kind of logical method to solve the doubts and discrepancies about Vedic texts, caused by the differing explanations of divergent views. This *Mīmāmsa* (Method or doctrine) of Jaimini is called *Karma-mimamsa* (an inquiry into the ritual of the Veda) and is also called *Purva-mimamsa* (an inquiry into the former portion of the Veda). Another name of mimamsa is *Vākya Sāstra* (the science of words or sentences). A thousand *Adhikaranas* (sections) are contained in the mimamsa and are unfolded in the shape of Sutras. The work has twelve chapters. The mode of interpretation includes the proposition to be

discussed, the discrepancy and doubt arising in regard to it, the prima facie (*Pūrva-paksha*), the wrong view of the proposition, the refutation of it (*Uttara-paksha*) and the conclusion. The understanding 'of an unseen member of a known association (*Vyāpti*) by the perception of another seen member' termed as Inference (*Anumāna*), the knowledge arising from similarity termed as Comparison (*Upamāna*), the knowledge that can be got of thing not itself perceived, but derived by the implication of another termed as Presumption (*Arthapatti*) and the verbal knowledge got from authoritative sources termed as sound (*Sabda*) are the measures of knowledge (*Pramānās*) or the authorities explained by Jaimini in his mimamsa by which one is to interpret the Veda.

Jaimini believes in the non-human origin (*Apaurusheyatva*) of the Veda and the inherent authority of it independent of any divine revealer and holds that only eternally pre-existing things are mentioned in the Veda. As the sound itself is eternal the Vedic words are non-human. He has also maintained that there is a perpetual connection between a word and its sense. For him the Veda was practically the only deity. The Veda promises a reward in heaven to one who performs Vedic sacrifices. Madhava, the great commentator of the Vedas, explains the Apaurusheyatva doctrine by saying that persons like Kaṭha did not compose but only handed down a certain portion of the Vedas and that the Rishis only revealed the pre-existing Veda. Hence these sages were called Vedic seers (*Mantra-drashthas*). The tendency of the teaching of Jaimini was to allow no place to either reason or God, though we cannot say that he denied God. Max Muller says that to make such a claim for Veda requires a considerable advance in philosophical and religious thought and corresponds to the belief of some Christian theologians regarding the Gospels as superhuman, eternal and infallible. If the Christians make such a claim for their scriptures, Hindus do not lack a genius who can expound a greater claim for their scriptures.

The opening words of Jaimini-Sutras, *Athāto Dharmajijnāsa* mean 'Now therefore the desire of knowing duty', whatever the conservative Brahmin commentators may say to the contrary. The above words in his first aphorism seem to be in imitation of those of Badarayana who begins his Sutras with *Athātho Brahmajijnāsa*, 'Now therefore the desire of knowing Brahman'. Jaimini has mentioned Badarayana by name Bādari. The Brahma-Sutras of Badarayana is known as *Uttara-mimamsa* (the mimamsa of the latter portion of the Veda) in relation to the Purva-mimamsa of Jaimini.

Nyaya, Vaiseshika, Samkhya, Yoga, Uttara-mimamsa and Purva-mimamsa form the famous six systems of Hindu philosophies (*Shad-darsana*) well-known in ancient India. Even before Jaimini the interpreters of Vedas were known as *Mimamsakas* and they are referred to in the *Mahabhashya*. Sabara (also known as Sabarasvamin) wrote an elaborate commentary upon Jaimini which is said to equal the Mahabhashya of Patanjali for its style and execution. One glossator named Prabhākara, said to be from South Travancore in Kerala, wrote *Brihati* and added to the work of Sabara. Another great scholar called Kumārila Bhatta wrote out critical notes (*Vārtika*) upon Sabara's work. In the work Kumarila Bhatta has wholly condemned Buddhist doctrines. In his Sutras Āpastamba has used arguments which are to be found in the Jaimini-Sutras. Jaimini probably lived in about A. D. 450.

A Srauta and Grihya Sutra besides a Jaiminiya Samhita and a Jaiminiya Brahmana of the Sama-Veda are known in the name of Jaimini. Puranas like *Vāyu*, *Agni*, *Brahmānda* and *Vishnu* describe him as a sage of great intellectual eminence. The writer does not know whether we can identify this Jaimini with a Jaimini who wrote a work on astrology.

The Works of Buddhaghosha

Buddhaghosha is the great commentator of Buddhist scriptures. His commentary on Dhammapada is famous. He can be rightly called the father of the Hinayana Buddhism. He is a Brahman and a native of Gaya in Bihar who became a convert to Buddhism. The work named *Visuddhi-magga* (Path of Purity) written by him in Pali maintains the Arhat ideal and shapes the Theravada view of the teaching of the Buddha. Some Burmese Buddhists regard Buddhaghosha as the source of their religion. He also seems to have gone to Ceylon from where he is said to have written some of his important works.

Buddhaghosha is said to have revised his *Attha Salini* from Ceylon, in which a passing reference is made to some worthy men of Ceylon. He wrote a great commentary on the verses about the *Jataka* stories and the prose stories in which they occur. To each story the commentary gives a framework of introductory episode mentioning the context in which the story is supposed to have been narrated by the Buddha. The commentary is in Pali and the tradition that it is the translation of an earlier commentary in Sinhalese is probably a fiction. The Jatakas do not mention the Nandas and the Mauryas while the rulers of the kingdoms known as Madra, the two Panchalas, Kosala, Videha, Kasi and Vidarbha play a very considerable part in the stories. The names of the Andhras, the Pandyas and the Keralas also do not occur in the stories.

In the seven long volumes the commentator alludes twice to Ceylon scholars of the second century A. D. from which fact the scholars conclude that the commentary was written from Ceylon. Professor Childers thought the author was identical with the famous Buddhaghosha, the author of other great commentaries. According to Rhys Davids, since we do not know of any commentaries of this kind written before the fifth century A. D. it is quite likely that this commentary is

also of about the same time. The printed collection containing 547 Jataka stories is edited by Professor Fausboll and what we have in the edition is the commentary.

The arrangement of the *Nikāyās* into five groups may also be attributed to Buddhaghosha or to an associate of him. The five Nikayas, called in the parallel *Sarvastivadin School* as *Āgamās* are the *Digha Nikaya* (long *Suttas*), the *Majjhima Nikaya* (medium long Suttas), the *Samyutta Nikaya* (grouped Suttas), *Anguttara Nikaya* (adding one) and the *Khuddaka Nikaya* (smallish).

The Digha Nikaya contains 34 Suttas in which there are, as pointed out by Mrs. Rhys Davids, jewels embedded in unworthy clay. Among them the most important one is *Mahaparinibbana-Sutta* (the Sutta of the Great Decease).

The 152 Suttas in the Majjhima are grouped in fifteen *Vaggas* (groups).

Of the 56 groups of Suttas in the Samyutta Nikaya, Wheel-turning Sermon and the twelve *Nidanas* (or wheel of causation) are famous.

The Anguttara Nikaya containing 2,308 Suttas arranged in 11 *Nipatas* (groups) describes the two kinds of Buddhas, two virtues of the forest life, three sorts of monks, the four ways which lead to heaven and the bad qualities of a *Bhikku*.

The Khuddaka Nikaya contains all material not amenable to the above classification. It contains Khuddaka-Patha, a Manual of the Buddhist life, the Dhammapada, the most famous of all the Theravada Scriptures and also the famous Jataka Tales—the histories of the Buddha's previous lives. It is said to be a supplementary collection, mostly of later works.

The Pali canon of which the Nikayas form the major part was, according to Christmas Humphreys, reduced to writing in Ceylon during the reign of the Sinhalese King Vattagamani (29–17 B. C.) by the Bhikkhus of the day. It is more probable that the Nikayas were arranged by Buddhaghosha or an associate of his. The spread of Buddhism in

Burma and Ceylon was mainly due to the work of Buddhaghosha. The tradition that Asoka sent either his younger brother or son named Mahinda (Sanskrit, Mahendra) to found Buddhism in Ceylon may probably be a fiction.

It is not clear whether Buddhaghoshacharya, the author of the Sanskrit work named *Padyachudamani*, is the same as the famous Buddhaghosha. The treatment of the Buddha's life here is different from that of Asvaghosha. His description of the worship of Tusita, the Supreme Being, by Devas is marked by lucidity and graphic detail. From the language of the book, it appears, as if the author has taken the style of Kalidasa as his model. Buddhaghosha flourished in about A. D. 450.

Tissa, son of Moggali, is said to have composed the *Kathavatthu*, a Pali Buddhist legend in verses. Some scholars are inclined to identify Tissa, the son of Moggali, of Ceylon tradition with Upagupta who is also counted like the former as the fifth in the succession of Vinaya teachers after the Buddha. According to the Southern school of Buddhism Moggaliputta Tissa organised the conference of Theravada section. It is very likely that Tissa (C. A. D. 400) was the inspirer of the Theravada school and the teacher of Buddhaghosha. *Milinda-Panha*, or Questions of King Milinda, is said to be actually a part of the Siamese canon. There is every probability of Tissa or Buddhaghosha being the author of Milinda-Panha. It is claimed to be a post-canonical work. Rhys Davids has opined that any one who habitually reads Pali would know at once that the Katha Vatthu is older than the Milinda.

Growth of Buddhism

Buddha Vamsa is a short collection of ballads comprising one separate poem about each of the twenty-five Buddhas, said to have succeeded one another. The work, probably after the model of Raghuvamsa of Kalidasa, may be assigned to

about A. D. 450. Another short collection of ballads called *Cariya Pitaka* comprising thirty-four short Jataka stories in verse seems to have been composed a little later, though Davids has placed Cariya Pitaka before Buddha Vamsa. *Dīpavamsa* (C. A. D. 500) and Mahāvamsa (C. A. D. 600) known as chronicles of Ceylon are two famous Sinhalese records of Buddhism. Dipavamsa (in Pali) contains the history till the end of the rule of Mahasena (A. D. 325-352).

Lalita Vistāra, a famous Sanskrit work, though belongs to the Theravada school, bridges in a way the gap between the Hinayana and Mahayana Buddhists. The interminable galleries of Buddhist tales in relief, cut with remarkable skill in the hard volcanic stone, of the Stupa of Borobodur (C. eighth to ninth century A. D.) in Java, are suggested to illustrate the Lalitha-Vistara. Lalitha-Vistara like Mahavastu and Buddhacharita stresses the extraordinary character of the Buddha from his childhood and suggests his divinity. The work mentions Puranas, Itihasas, Vedas, grammar, Nirukta, Siksha, Chandas, Kalpa (ritual), Jyotisha (astronomy), Samkhya, Yoga, Vaiseshika and Hetuvidya (probably Nyaya). The work probably belongs to the sixth century A. D.

The angelic enunciation of the birth of Gotama by *devas* to his father and the prediction of his future greatness by Asita, the Buddhist Simeon, resemble the stories of the Christian gospels. The story of Devadatta, the Buddhist Judas, and his transfigure and his performance of thirty-two healing miracles are notable among the many resemblances between the Christian and Buddhist legends. These resemblances have been brought to light by Edmunds and Anesaki and what A. C. Bouquet says about the origin of these resemblances is that 'we must be honestly reckoned with the probable existence of a large number of appropriate folk-stories about holy persons, which influenced alike the traditions about Jesus and Gotama, and led them to assume certain forms.'

The story of St. Josaphat, who in the romance of Barlaam and Josaphat became a prince and moved by the miseries of the world renounced the princely life to become a saint, is, according to Lin-Yutang, borrowed from the Buddhist story called Lalitavistara, for the Christian story was written in the eighth century A. D. But Lin-Yutang is of the opinion that 'the story of King Solomon dividing the child between two mothers certainly antedated a similar story in the Buddhist Jatakas.'

The story of Christ asking the Samaritan woman (4th Gospel Ch. 4) for drink has its parallel in the *Divyavadana* in which Ānanda, one of the Buddha's disciples, asks a *pariah* woman for a drink. In the Gospel of John (9. 1) we read: "And as Jesus passed by, he saw a man which was blind from his birth. And his disciples asked him, saying, Master, who did sin, this man, or his parents, that he was born blind?" The same question appears in *Saddharma Pundarika Sutra*, a Buddhist work. Some examples of such plagiarism were first published by Seydel, a professor of philosophy at Leipzig in 1832 and 1884. The spiritual worlds of the Gnostics remind us the Bodhisattvas of the Mahayana Buddhists. As pointed out by A. C. Bouquet we cannot rule out the possibility of Nestorian (Syrian) Christian influence in the Buddhist legends. Similarly Kamsa of the story of Krishna resembles the Herod (the massacre of the innocents in Matth) of the Christian story. It is said that the Christian canon was closed towards the end of the second century A. D.

Dharmaruchi, a monk from South India, and Ratnavali from North India were important Buddhists who went to China in the sixth century A. D. and contributed to the growth of Buddhism there by translating numerous Buddhist works. Tripitakacharya Bodhiruchi went to Kashmir, crossed the Himalayan ranges and reached Loyang through Central Asia in A. D. 508. During the time, it is stated, there were

about 3000 Indians in North China including 700 Sanskrit knowing monks. He stayed in Loyang from A. D. 508 to 535 and translated 29 Buddhist books of which ten are extant.

It is to be ascertained whether the name of Tripitakacharya suggests him to be the teacher who collected and grouped the Buddhist scriptures into three sections bearing the name *Vinaya Pitaka*, *Sutta Pitaka* and *Abhidhamma Pitaka*. They are together known in Pali as *Tipitaka* (three Baskets). The Vinaya Pitaka (Basket of the Rules) contains the Patimokkha, or Rules of life binding on all members of the Sangha. The rules are 227 in number of which probably a few were declared by the Buddha. The Sutta Pitaka (Basket of the Teaching) contains the five Nikayas giving the Sermons or Teaching of the Buddha. The Abhidhamma Pitaka (The Basket of further Law) contains a heterogeneous mixture of high value for the training of the mind. The names of the six systems of Brahminic-philosophies are found in Tripitaka. The form of the Pali canon into the Tripitaka seems to be probably made in the early part of the sixth century A. D.

A Chinese Buddhist mission arrived in Maghadha in A. D 539 being sent by Wu-ti or Hsiao-Yen, the first Liang emperor of China who was an ardent Buddhist. Their aim was to gather original Mahayana scriptures and secure the aid of a scholar who could translate them into Chinese. They were well received and consequently the learned Paramārtha went to China taking with him many texts which afterwards were translated into Chinese by him. Paramārtha reached China in A. D. 546 and died there in 569 at the age of seventy.

Bodhidharma, known in Chinese as Tamo and in Japanese as Daruna, was an Indian Buddhist from Conjeevaram, near Madras, and was the son of a king of Southern India. He is said to have reached China in A. D. 520 or in 552 or in 557 and became the first patriarch of Buddhism in China. He stayed at Canton for a short time and then settled at Lo Yang. The Chinese Buddhists recorded many miracles supposed to

be made by him. Bodhidharma who had a brilliant and ruthless mind preached that one need not necessarily depend upon scriptures and have a special transmission by pointing to the soul of man and seeing into one's own nature. This teaching of *self-effort* was claimed by him as *Dhyana* which also was claimed by him to be returning to the spirit of the teaching of the Buddha. According to the school an image may be used for devotional purposes by the beginners and the scriptures are useful on the foothills of one's understanding. Though gorgeous robes, incense and chanting may attract the common people, they are merely toys to the outgrown. In China this school was called Ch'an, the Chinese corruption of Dhyana. In the twelfth century A. D. it passed into Japan, where the name was corrupted into Zen. Bodhidharma's stress on intuition was widely welcomed in these countries.

Dharmakīrti (C. A. D. 650) was born in Trimmalaya (Deccan) and is suggested to have been born in Satyasraya Pulakesin's time. He was a Brahmin by birth, but attracted by Buddhism, became a convert. He learned under Dharmapala (A. D. 635) for a long time in Magadha. His works *Nyaya Bindu*, *Pramana Vartika Karika* etc. are classics. Paramartha was also a Hindu turned a Buddhist who went by sea to South China and translated *Surangama Sutra*, a Buddhist work in Sanskrit, into Chinese with the help of a Chinese scholar in A. D. 705 at Canton. The popularity of the Surangama Sutra in China was so high that fifty-six commentaries and various elucidations were known to exist in Chinese language. The Surangama Sutra gives the best approach to the philosophic basis of Mahayana Buddhist belief. Lin Yutang sees in it 'a process of intellectual inquiry that upsets all values' and 'the real meaning of the ultimate reality taught by Buddha, similar to the basis of Kantian idealism.' The work is in the form of questions and answers between the Buddha and his favourite young disciple Anand which recalls the conversation between Krishna, the

Lord, and Arjuna, his friend in the Bhagavad-Gita. Ananda and Manjusri are figured on the left and right of the Buddha in Chinese Buddhist temples. The author of the work is unknown and one may suspect the translator for the author of the original.

In and around the beautiful city of Soochow in China there are seven ornamental pagodas. In their towering height these Chinese pagodas seem to pierce the clouds. One of them, called the Tiger Hill Pagoda, is the oldest one in China. The Tiger Hill Pagoda was built in the seventh century A. D. during T'ang dynasty (A. D. 618–907). The idea of building a pagoda came to China from India during the rule of the T'ang dynasty when the influence of Buddhism was at its peak in that land. The Pagodas were built to keep the ashes of the Buddha which the Indian priests carried to China. The Indian art was employed in the building up of pagodas and the effect of the influence of Indian sculpture on Chinese architecture resulted in the creation of the unique style of architecture that the Chinese artists bequeathed to the world.

Growth of Literature

Vātsyāyana, a great logician, wrote the famous *Nyāyabhāshya* (C. A.D. 450) on the Nyaya Sutras of Gautama. The Nyayabhashya is likely to be a sincere attempt by a Hindu scholar to counteract the Nyayapravesa of another great logician called Dingnaga who according to Vachaspati Misra (10th century A. D.) interpreted the aphorism of Gautama in a Buddhist sense. A book on sex called *Kāmasūtra* is another important work of the same author. Vatsyayana is ascribed by tradition to South India.

Visākhadatta (C. A.D. 450) produced the great drama called *Mudra Rākshasa*, the plot being based on the Mauryan Chandragupta's conquest over the Nanda king with the help of Chānakya, said to be the minister of Chandragupta. As regards the religious literature the Jaina canon was again put in order by a council at Valabhi in A. D. 453.

Sabarasvāmin's great Bhashya on the Mimamsa-sutras of Jaimini was written in about A. D. 500 and in the work Mimamsa becomes a system of philosophy instead of mere ritualistics. According to A. B. Keith his date cannot be earlier than A. D. 400. The Bhashya of Prasastapāda on Vaiseshika-sutras called *Padartha-dharma-samgraha* may be assigned to A. D. 500. The work is said to be a little later than the Nyayabhashya of Vatsyayana. Gaudapada's Karikas (C. A.D. 500) on Mandukya Upanishad is a famous philosophical treatise belonging to the same time.

Āryabhatīya (A. D. 499) by Aryabhata, a native of Pataliputra is a work registering notable progress in Mathematics, Astronomy, Algebra and Trigonometry. In his work arithmetical calculations were simplified by the use of zero and the principle of the place value of the numbers. By the third century A. D. the Babylonian mathematicians came to agree upon a sign of zero. The Alexandrian mathematicians adopted the idea of a zero sign in the form of an 0 (for ouden, nothing), though they used it only with sexagesimal fractions which system also was borrowed from the Babylonians in the second century A. D. Aryabhata gives methods to extract square and cube roots and a more accurate value for π. He has explained the rotation of the earth round its axis and the cause of the eclipses as well as the methods of calculating them precisely.

Panchasiddhantika (A. D. 505) is a well-known work by Varahamihira describing five systems of astronomy in vogue in his time. *Brihatjjataka* and *Laghu-jataka* are his works on astrology while his *Brihatsamhita* is a cyclopædia of metallurgy, architecture, physiognomy, physiography etc. Varahamihira pays high compliment to *Yavanacharyas* on astronomy. The *Ashtanga-samgraha* (C. A. D. 550) by Vāgbhata is a famous medical book being a systematic summary of Charaka and Susrata. A quotation from a speech very recently made by a Chinese scholar, Lu Ting-yi, will make clear the view of a

modern materialist on the social background of sciences. "As everyone knows, the natural sciences including medicine, have no class character. They have their own laws of development. The only way they tie up with social institutions is that under a bad social system they make rather slow progress, and under a better one they progress fairly rapidly."

The most popular lexicon named *Amarakosa* (C. A.D. 550) was composed by Amarasimha who was probably a Buddhist as is evidenced by his regard to the Buddha in the work. Chandragomin of Bengal is another Buddhist author whose grammatical work called *Chandra-Vyākarana* (C. A. D. 550) was recovered from a Tibetan translation. *Kirātārjunīyam* (the hunter and Arjuna) is a famous poem in Sanskrit composed by Bhāravi (C. A. D. 550) on the episode in the Mahabharata in which the Pandava brothers were exiled to the Dvaita Forest where in response to the penance of Arjuna the God Mahesvara appears before him in the form of a hunter and engages him in a hand to hand fight at the end of which Arjuna got the sought-for *Pāsupata Astra* from the God. The poem has eighteen cantos. The second canto, which narrates the meeting of a secret council of war to prepare plans to counter the strategems of Duryodhana, contains a summary of the Barhaspatya Danda Niti and the Arthasastra used for information on state craft and the methods of warfare by rulers. In the poem he affixed the name of Goddess Laxmi to the concluding stanza of every canto consequent to which he earned the title *Laxmyanka.* As pointed out already Bharavi is mentioned along with Kalidasa in an inscription of A. D. 585 (507 Saka era) published by Fleet in the Indian Antiquary, 1876 on pages 68–73. The inscription was first mentioned by Dr. Bhav Raji, in the Journal Asiatic Society, Bombay Branch, Vol. IX.

Silappadikaram (C. A.D. 600) is a well-known poem of epic in Tamil in which the Kannagi legend, an old saga known to earlier writers, is rehandled most beautifully. The theme

is a love story narrating Kovalan's attachment to a courtesan called Madhavi of Kaveripattanam (city of Kaveri) disregarding his noble wife Kannagi and the consequence thereof. According to K. A. Nilakanta Sastri the name of the author, Ilango-Adigal (the Princely monk), may be a transparent pen-name and the author apparently seems to be a Jain. Though less in literary quality another important Tamil poem is *Manimekalai* (C. A. D. 650) which takes its name from the daughter of Kovalan and Madhavi and describes the adventures of Manimekalai and her renunciation after her father's tragic death. This is said to be a Buddhist work by a grain merchant of Madura named Sattanar. One of its cantos contains a straight translation of a large portion from the Nyayapravesa of Dingnag. The statement in the prologues to the two poems that their authors are contemporaries and friends of Senguttuvan, a Chera monarch, is treated by scholars as a literary device.

Rāvana Vadha is a Sanskrit poem by Bhatti (C. A. D. 650) giving illustration for the application of the rules o grammar while narrating the story of Rama. The poem exploits all the attributes of a Kavya (poem) described in *Alankāra Sastra*. The work is also known as *Bhattikāvya* (the poem of Bhatti). Valabhi is mentioned by the author as his native place under the rule of Sridhara Sena. The *Niti Sataka* (The hundred on policy), *Sringāra Sataka* (The hundred on love) and *Vairāgya Sataka* (The hundred on renunciation) in aphoristic style by Bhartrihari (C. A. D. 650) are considered among the best of that kind of literature. The author may be the same as the grammarian Bhartrihari, author of *Vākyapadīya*, whom I-tsing (A. D. 691) has assigned to fifty years before him.

The two Buddhist poems in Sanskrit named *Ashtamahās-rīchaitya-stotra* (a hymn to the eight great Chaityas) and *Suprabhāta-stotra* (a hymn of the dawn addressed to the Buddha) were composed by Harshavardhana, the famous

ruler of Kanauj (A.D. 606-646). The three dramas, *Nāgānanda*, *Ratnāvali* and *Priyadarsika* are also attributed to Harsha. Harsha was a patron of poets among whom Bāna was most important. Harsha worshiped the Buddha, though according to Bana he was a devotee of Siva. From the resemblance of Bana's style to that of the works attributed to Harsha, some critics have said that Bana had a part in composing those works.

Harshacharita (Life of Harsha) is a marvellous production of prose-writing by Bana (C. A. D. 650). Hero of the work is the same Harshavardhana, the friend and patron of Bana. He employs a graceful language displaying harmony of sound and sense. Another celebrated prose work of the author is *Kādambari*. There is a tradition that one who has read Kadambari will not read any other work. In this masterpiece of Sanskrit prose the art of writing is said to have achieved its completeness. Apart from his detailed description of things, he has handled the nine prime *rasas* most effectively. Humour and satirical element were employed enough. It is said that Bana did not live to finish Kadambari and the latter half was composed by his son Bhushana Bana or Bhushana Bhatta.

The Brihatkatha (great narrative) of Gunādhya containing many fables written in Paisācha Prākrit is now extant only in translations. In the eleventh century A. D. Kshemendra of Kashmir translated the work into Sanskrit in the form of a pleasant poem under the name *Brihatkathamanjari*. Another rendering of the original into Sanskrit was by Somadeva (1063-1081) under the name *Kathāsarit-sāgara* (ocean of the rivers of stories). The Tamil version is known as Perungadai. The theme of Brihatkatha is the life of Naravahanadatta who was the son of Udayana of Kausambi. The statement in the Kathasaritsagara connecting Gunadhya with the ruler Satavahana cannot be taken for history. Baber, a European scholar considers the author to be the contemporary of Dandi

and might have lived in the sixth century A. D. He is referred to by Dandi and Bāla Bhatta. Gunadhya might have probably written his work in about A. D. 650.

Kāvyādarsa is a fine manual of rhetoric written by Dandi (also written as Dandin) who probably lived about A. D. 700. He has immense capacity to put in verse form the difficult discussion of poetics. *Avantisundari*, another work of the author, is a story of pure imagination written in simple and eloquent prose. *Desakumaracharita* (the tale of the ten princes) is believed to be a part of the *Avantisundarikatha* of which the beginning and the end were written by others. Desakumaracharitam is full of adventures and romantic episodes of high imagination rendered in simple and lucid writing. He spent many years in the court of Pallava Narasimhavarman II Rājasimha (A. D. 680-720) whose long rule was marked by peace and prosperity.

Later Law Books

The law book called the *Baudhāyana Dharma Sutra* was written by Baudhayana who was also the author of a *Kalpa Sutra* (aphoristic treatise on rituals—also called *Srauta-sutras*), a *Grihya Sutra* (domestic rules) and a *Pravachana Sutra*. The Dharma Sutra refers to the Grihya Sutra as if the former forms part of the latter. Maharnava establishes that the influence of Baudhayana was generally confined to the South. The inscriptions recording the land-grants by Bukkarāya, the King of Vijayanagar (A. D. 1354-55), and Nandivarman Pallavamāta of Kānchi (A. D. ninth century) go greatly in favour of his followers. And from some other evidences, scholars have concluded that Baudhayana lived on the east coast of the Deccan.

Baudhayana generally follows Gautama. Like Gautama he enumerates six kinds of marriages. The tenth chapter of his Dharma Sutra has a close resemblance to the Dharma Sutra of Gautama while the sixth has some resemblance to

the *smriti* of Vishnu. He protests against the custom of paying *Sulka* allowed by Kautilya. He avers that a wicked father who, tempted by greed, gives away his daughter for a fee shall commit a great sin and shall undergo a dreadful punishment after his death apart from destroying his families down to seven generations. Besides he will suffer repeated death and birth. Baudhayana allows a man to divorce a barren wife in the tenth year of the marriage; a wife who bears only daughters in the twelfth year; a wife whose children all die in the fifteenth year. But he can abandon a quarrelsome wife immediately. Daughters are entitled to inherit only the ornaments of their mother. He holds the custom of Niyoga as legal.

Baudhayana advises a man to feed his guests first and then the pregnant woman to be followed by the infants and the aged. Taking food in the company of an uninitiated person or with one's wife and stale food and wedding the daughter of a paternal aunt or of a maternal uncle are explained by him as customs peculiar to the South. In the *Shulva Sutras* of Baudhayana is embodied the Pythagoras theorem.

The suggestion of the scholars that Baudhayana's date is not later than the third century B. C. and that he is next in antiquity to Gautama needs revision. The passage, "*Tasmāt striyo nirindriyā adāyādā api pāpāt pumsah upasthitarah*," from *Taittiriya Samhita* (VI. 5. 82) resembles the eighteenth verse of the ninth chapter of Manava Dharma Sastra and is quoted by Baudhayana as a passage from Veda. Probably the author of Manava Dharma Sastra as well as Baudhayana quoted Taittiriya Samhita. In the Mahabharata King Dushyanta persuades Sakuntala to a Gandharva marriage which he pleads legal by quoting the high authority of Manu which runs as follows: "Please know that, among the eight kinds of marriages, Manu Svāyambhuva has formerly held the first four as lawful for a Brahmana and the first six is lawful for a Kshatriya." The exact parallel of this passage of the

Mahabharata is found in the Dharma Sutra of Baudhayana. The above passage, pointed out by Prof. Buhler in his introduction to the 'Laws of Manu' shows that Baudhayana might have quoted Manava Dharma Sastra which in turn was quoted by the compiler of the extant (third recension) Mahabharata. A verse from the Gita and another from Yayati Upakhyana are quoted in the Dharma Sutra (2.22.9; 2.2.26).

In the fourth *Prasna* of the Dharma Sutra the aphoristic prose employed in the preceding Prasnas is replaced, almost throughout, by the epic sloka. And also the common slipshod Sanskrit forms found in the Puranas occur in the fourth Prasna instead of the old forms. Moreover, the fourth Prasna is divided into *Adhyāyas* instead of *Kandikas* or *Khāndas* as in the first two Prasnas. The above fact has hastily led some scholars to conclude that the fourth Prasna and perhaps the third one also were additions by later writers basing on the false assumption that an author cannot use two different styles of language and method or that Baudhayana lived long before the use of epic sloka. In the circumstances, about A. D. 550 seems, to my mind, a probable date for Baudhayana. He is said to belong to the Black Yajur-Vedic school.

The *Dharma Sutra* of Āpastamba is an important work. He has also written a *Kalpa Sutra*, *Grihya Sutra* and *Sulva Sutra*. The Dharma Sutra of Apastamba is mainly followed in the South. Like Vasishtha he recognises only six kinds of marriage rites namely, the Brahma, Arsha, Daiva, Gandharva, Asura and Rakshasa rites. He does not permit Paisacha marriage like Baudhayana and Gautama. Unlike Gautama and Baudhayana, he adopts the more ascetic and conservative laws which are dealt in full in Manava Dharma Sastra. He discards the laws which permit greater freedom to women on the plea that they were unfit for the people of his time. His laws were written to help preserve the chastity of women and to reduce the over-importance attached to the male

birth. He protests against the system of Niyoga. Apastamba belongs to the Black Yajur-Vedic school and he considers himself to be the child of the *Kali age*. His attempt to controvert the laws of Baudhayana indicates that he is later than Baudhayana. He is mentioned in an inscription of the ninth century A.D. Apastamba probably lived about A.D. 600 though some scholars have placed him in the third century B.C.

The Grihya Sutra of Asvalayana is the most important among the later grihya sutras. Max Muller says that it belongs to the very end of what he calls the Sutra-period. He has pointed out in 1859 in his History of Ancient Sanskrit Literature that we find in the work such names as Gautama, Vaisampayana, Gargya, Gargi Vachaknavi, Paila, Kaushitaka, Samkhyayana, Mandukeya, Sumantu, Jaimini, teachers of the law, Mahabharata and Bhashyas. Asvalayana probably lived in about A. D. 700.

The Buddhist Art

The flower of the Buddhist art in India is said to have developed in a period ranging from A. D. 300 to 700 which is approximately called the Gupta period, the period taking its name from the Gupta rulers of India. During the period, in Mathura, Sanchi, Amarāvathi and Ajanta most exquisite works of art were produced, although some products in these sites were found to be made earlier. The beautiful Chaityas (cathedrals) and Viharas (monasteries) cut out of the rugged mountain cliff in Ajanta are admired for their beauty and completeness of architectonic details. The twenty-nine caves of Ajanta are richly represented with sculptures and frescoes of the seventh century or later that have survived the ravages of political conquests and religious iconoclasts.

The Ajanta art varies from Puritan severity to a fascinating riot of colour and form and ranks among the finest art of the world. A minister and feudatory of the Vākātaka Harishena caused rock-architecture of the Vihāra

Caves XVI and XVII in the last quarter of the fifth century A. D. The XIX cave discards wood entirely and displays a remarkable capacity to produce a Voluptuous Buddha figure, the kind of which was unknown at Kārli and Nasik. This cave was completed in the sixth Century A. D. The picture of the great Bodhisattva Padmapāni in Cave I is hailed to rank foremost in the Asiatic pictorial art. The incidents in the life of the Buddha and the Jataka stories provided themes for these painters. These paintings belong to the latest of the series and are said to be of the seventh century A. D. On the hundred walls and pillars of these rock-carved temples marvellously varied scenes are represented. Among them are forests and gardens, heavenly messengers moving swiftly in the sky, men and women in their physical nobility, animals in their strength and grace and birds and flowers in their loveliness and purity. Rothenstein says that a visitor sees a vast noble drama moving before his eyes with heavenly bliss.

The seated preaching Buddha of Sarnath and the standing Buddha of Mathura are leading examples of the fine sculptures of the age. Another prominent sculpture fully conforming to the artistic canons of the time is the colossal copper statue of Buddha, 7½ feet in height, from Sultanganj, which is now kept in Birmingham museum. One of the two stupas at Rajgir and the Dhamek stupa at Sārnāth are among the remarkable Buddhist structural buildings belonging to the sixth or seventh century A.D. The 128 feet high Dhamek stupa has four niches for the Buddha figures at the cardinal points. Its decorative scrolls and geometric patterns have evoked high admiration. The capital of the stupa forms the national emblem of the Union of India since A. D. 1947. The temple at Buddha Gaya and some of the most beautiful images in stone, bronze and gold which have survived are said to belong to the same period. Among the arts of the age, the caves of Ajanta are better known to the west than the others.

The Buddhist art of India crossed, with the *Dhamma*, the northern hills into Nepal and Tibet. The Buddhist art forms reached China along the old silk routes and thence Korea and Japan. From South India the art was carried to Ceylon and, by the long sea route, to South China where it blended with the art already reached there by the former land route producing China's richest art. During various periods and by various routes the Buddhist art reached Burma, Siam, Cambodia and Java and developed from there so as to produce some of the finest images and buildings in the world. The Ajanta painting has survived abroad in the Sigirya frescoes of about the fifth century A. D. in Ceylon and in the Horyuji frescoes of the late sixth century in Japan.

The Hindu Art

In the inscriptions of the Gupta-age the temples of Vishnu are frequently mentioned. Among the incarnations (avatars) of Vishnu, Varāha (boar) and Krishna furnished themes for the Hindu sculpture and art of the age. God Siva was represented by means of lingas, sometimes bearing one or four faces, besides in human form as on the coins of the Kushana rulers. In Mathurā occurred a sculpture in which a devotee offers his head to god Siva. This motif is found often reproduced in the Pallava sculptures of a later period. In Udayagiri and Bhumra in Central India have appeared images of Mahishāsuramardinī.

Several brick temples in the Uttar Pradesh, Bihar, Bengal and Madhya Pradesh are found to represent the architecture of the Gupta-period. Well preserved and moulded bricks of fine design were used in the construction of the temple of Bhitargaon in the Cawnpore district. This temple was constructed with a pyramidal roof and the outside of its walls were decorated with terracotta panels representing scenes of mythology. A few temples were built by using stone. This sort of temple measures about ten feet square

and has a porch of still smaller size and an unpretentious flat-roof. Its masonry is remarkable, the finely dressed stones being held together without mortar.

The Dasāvatāra temple at Deogarh had a *sikhara* of about 400 feet high which stood on a raised plinth in the middle of the open terrace. Its interior was plain except the entrance which was exquisitely decorated, the figures of Yamunā and Gangā being beautifully carved on the jambs. The sculptural panels of the temple are considered to be the most superb of such kind.

The Hindu temple owes to the Buddhist stupa for its main features of plan. The Kapotesvara temple at Chezārla belonging to the fourth century A. D. which has an apsidal plan analogous to that of the typical Buddhist *chaitya* is the earliest known Hindu temple in the South.

Colonisation in the East

From India small waves of colonists began to establish themselves on the coastal regions of Malaya, Indonesian archipelago and Indo-China by about the first century of the Christian era. There they married the native women and founded small principalities which became the centres of flourishing trade with India, carried on mainly through the ports of the east coast ranging from Negapatam to Tamralipti. Soon these principalities grew, leading to the establishment of Hindu kingdoms in Indonesia, Annam and Cochin-China. The first Indian colony in Java is said to have been made in A. D. 56. According to A. Muhardjo, the earliest Hindu Indonesian kingdom that sprang up is known to be that of King Adji (Aji) Saka at about 79 A. D. This king was also known to have introduced the Indian scriptures in the islands. The route of migration is detected to have been by sea through the Straits of Singapore and by land across Malaya. The regular action of the monsoon which dominated the anvigation of the Arabian sea and the Bay of Bengal was

discovered, as mentioned already, for the West by Hippalus in A. D. 45. In the Kathasarit Sagara the voyage of a merchant named Guhasena from the port Tamralipti in Orissa to Kataha (modern Kedah) where he engaged himself in jewel trade and prospered is mentioned. It is also stated in another story that one merchant named Danavarman sailed in a ship to Kataha-dwipa and thence to Karpuradwipa (the camphor island) and to Suvarna (Sumatra). The investigations of Quaritch Wales made recently have shown that the Takola mart, at the mouth of Takuopa river, in Malaya was flourishing by the second century A. D. The Yava-dwipa (the Barley island—later written as Java by the Dutch) was mentioned by Ptolemy in the first century A. D.

One King of Indonesia named Devavarman is known to have sent an embassy to China in A. D. 132. The inscriptions of Purnavarman in Sanskrit mention his father as Rajadhiraja. A great Chinese pilgrim called Fa-Hien, who travelled through India between A.D. 399 to 414, on his return voyage from Ceylon was known on good reason to have drifted on Borneo. From Funan (later Kambuja) a portion of Indo-China bordering on Tonkin we have evidence of a Hindu community flourishing there in ancient times. According to Chinese records the date of establishment of this kingdom was A.D. 192. From the country comes also an inscription of a king called Srimāra which is assigned to the same period.

The establishment of the Hindu kingdom of Funan is attributed to one Kaundinya said to be a Brahmin who according to legends arrived there and married the daughter of the Naga king, who was wrapped by him in a piece of cloth as she had no clothing. The incident is mentioned in a Champa inscription dated A. D. 658. It is also alluded to in the history of the Southern Tai compiled in the beginning of the fifth century where Kaundinya is said to have been transcriptioned as Hoeun-Tien. From the statement that the Naga princess was naked, historians have suggested that the

local population was then in a more or less primitive state of civilisation. The suggestion rests too much on legends. The followers of Kaundinya also married locally and settled down in Funan following almost the traditions of India, their motherland. A Chinese ambassador named Kang-Tai visited Funan in the third century A. D. and recorded the story of Kaundinya mentioning the latter as a Brahmin who came from an island in the Indonesian archipelago. In the year A.D. 240 a Funan king sent an embassy to India which is mentioned to have stayed in India for about four years. One king of Funan named Gunavarman is described in a stone inscription of his as 'the very moon of the Kaundinya dynasty' who had built a temple of Vishnu. At the commencement of the fifth century A. D. another kingdom called Champa emerged which was always in hostility with the kingdom of Funan. In the year A. D. 484 King Jayavarman of Funan sent an embassy to China to solicit help against the increasing power of Champa.

Till the beginning of the modern age, at Bangkok in Siam and Phnom Penh in Cambodia, Brahmins of very mixed descent wore the *sikha* and *upavīta*, worshiped a mixed kind of Hindu and Buddhist images and conducted court rites inherited from the earlier Hindu kingdoms. Even during the modern period the themes for dramas, shadow plays, dances, and marionette shows in Malaya, Indo-China and Java are drawn from the Hindu epics and puranas. The Hindu dharma-sastras and artha-sastras have left their traces on the polity of these territories. It is also apparent that the languages of these lands have been enriched by the vocabulary of Sanskrit and made flexible by the contact with its grammar. Their scripts are adaptations of Indian scripts. The prevalence of 'a live sense of social grades' and the use of the luni-solar calendar and the Saka era are the vestiges of the ancient Indian influences. Moreover, the superb stupa of Boro-Budur (Java) and the remarkable temples of Angkor

(Cambodia) are monuments of the contacts with the ancient India and its genius.

Such names as Takkola (market of cardamoms), Karpūra-dvipa (the island of camphor) and Nārikeladvīpa (cocoanut island) indicate that it was trade that attracted the people of ancient India to these lands in the East. Further, names like Kanakapuri in Dvīpāntara (Malaya), Suvarnadvipa (Sumatra) and Suvarnabhūmi also indicate the richness of the countries in that epoch. Some of the Indian colonists, it is said, carried with them pepper vines from Kerala and planted them in Malaya and Indonesia. There is evidence to show that Java sold pepper to China in the thirteenth century A. D. But Indian pepper weighing about 3000 pounds were found in a Rome depot which was seized by the Gothic invaders in the fifth century A. D.

From the early Sanskrit inscriptions of Burma, Malaya, Borneo, Java and Indo-China in Brahmi characters of South-Indian variety and the Buddha images occurred in the early Amaravati type of about second century A. D. at several sites in these lands, scholars have concluded that the earliest emigrants were from the east coast of South India. The Agastya legends found in vogue in these countries were also considered by them to support the above view. From east Borneo came seven stone *yupas* inscribed in *Pallava-Grantha* of around A. D. 400. They record the conquests of the King Mūlavarman, who is mentioned to equal Yudhishthira, and the Vedic sacrifices performed by him with the help of Brahmins from India who were brought there for the ritual. Pūrnavarman, known from Sanskrit inscriptions in characters also of South Indian variety of about A. D. 450 was the ruler of the kingdom of Tārumā in the West Java. This kingdom is known to have existed until it was merged with the maritime empire of Srivijaya (written as Sriwidjaya by Indonesians) in the island of Sumatra which was founded at the end of the fourth century A. D. and flourished in the

seventh century A. D. with the present city of Palembang as its capital. The Javanese text of the Virātaparvan of the Mahabharata shows that the South Indian recension was learned in Java.

By the time the Indians reached the Indonesian archipelago the local people of Indonesia had, says A. Muhardjo in an article, already reached a high level of civilization. They used metals and cultivated rice in irrigated fields. They knew ship-building and they used to sail in the ships to the South Japanese islands in the north, the Pacific South Sea island in the Far East and Madagascar in the far away West. According to an article by Principal Joseph Minattur, it was probably the Polynesians who introduced the outrigger canoe and the cocoanut into India. The writer thinks that there is every probability of the pepper also having been introduced into India by them, though it is yet to be ascertained. Childe says that the Polynesians of Oceania, who were in the Stone Age, with their stone tools built boats with a length of more than one hundred feet capable of accommodating over a hundred men and provisions. It has been recently shown by Prof. Seine-Geldern of Vienna who has worked on Māyā civilization that from the second century A. D. onwards and especially from the fifth to the twelfth, Indian influence flowed into Central America through the Indonesian islands.

Geopolitics

Physical feature of a country *was* one of the major factors that determined the historical evolution of the people in it. The relation of geography with political processes is termed as Geopolitics. Though scholars like Buckle had emphasised the relation between geography and civilization as early as in the nineteenth century A. D., it was only at the beginning of the twentieth century that geopolitics found expression in a fundamental manner in the well-known essay, the '*Geographical Pivot of History*', by Sir Halford Mackinder. His grandiose

theory that the states of the heartland of Europe were continuously pressing to the sea coasts was elaborated further in his '*Democratic Ideals and Realities.*' Haushofer and his school developed the theory from the German point of view which was later to become the foundation of the military thinking of Hitler and his generals. The above German school stressed the need of organising land masses independent of sea-borne trade and making the marginal area impervious to attacks.

In India it is Sardar K. M. Panikkar who first expounded geopolitics eliminating the European mistakes and correctly applying the science to Indian History. He has attempted in '*Geographical Factors In Indian History*' a preliminary study of the effects of geography on the moulding of the history of India.

The Geographical knowledge of the ancient people was meagre and incomplete as they had the knowledge of land routes only. It was only when the mariners' activities grew later, geography as a world science was developed as the entire area of the earth comes into view only when the two poles are reached and the great oceans sailed and charted. As pointed out by Toynbee, in the Caravan Age the ancient people of Central Asia believed that the Oasis of Ferghana in Central Asia was the central point of the world. Sea travel exposed the folly of such notions. Later, the old caravan routes such as the silk road from China to Europe was also replaced by railways.

One of the chief factors of history is well-conceived as the pressure of the land and sea nomads against civilization. Those countries exposed to such invasions were easily conquered and occupied, while those protected by natural barriers were not subdued very often, and after any turmoil easily settled down again. Prof. Sinkovitch, a noted historian, has stated that one of the reasons for the fall of the Roman Republic and Empire was the gradual deterioration in the productiveness of Mediterranean countries.

Geographical knowledge in ancient India was meagre while the Arabs and Chinese were comparatively better geographers. Among the Indian writers Kautilya, Vatsyayana and Kalidasa reveal some geographical knowledge. But India did not produce geographical maps like the Chinese or the Arabs.

The Himalayan range stretches from the Western end of Kashmir in the West to Burma in the East with 1500 miles in length and 150 miles in width. The range providing a protective barrier obstructs the cold winds of Central Asia, and gives rains by arresting the monsoon clouds from Indian ocean. The Himalayan range is the culmination of the vast elevated plateau called Tibet which is raised nearly 15,000 feet above the sea level. While the mountain range of Himalayas separated India from the rest of the continent, it never served as an insuperable barrier against penetration through its Passes by a determined people or warriors. Otherwise, it separated India from the continental affiliations. It helped to grow a false belief in the security of the country and hence the people of the country always found themselves surprised when an invasion took place. Another bad result of the isolation was the development of a sense of contempt for the foreigner among the Indians. That accounts for their calling a foreigner *mlechha* (a low placed person).

The Aryavartha of Vasishtha and Manu really constitutes the Indo-Gangetic plain. The plain lies between the plateau of the South and the Himalaya mountains and is watered by the Indus and the Ganges rivers. The plain is about 300,000 sq. miles in area and the most fertile land in India. With its immense resources and comparatively thick population the Gangetic Valley usually dominated North India in ancient times. Panikkar says: "The earliest imperial traditions in India were developed in Magadha and whenever a dynasty successfully united the Ganges Valley it inevitably spread its authority over the entire Aryavartha".

Deccan is a three-sided geographical plateau which rises from the Indo-Gangetic plain on the north and from the littoral-plains on the east and west of peninsular India. The table-land commences with the Ajanta Range in the Vindhya mountains in the north and ends at Nilgiris in the south. The other two sides of the plateau are called the Western Ghats and the Eastern Ghats. The plateau lies 1,500 feet to 4,000 feet above sea level and is broken up into many river valleys. As pointed out by Panikkar the table-land and its rivers constitute a formidable barrier to the people of northern countries providing comparatively secure life to the South. The Deccan plateau forming the great middle rampart of India always baffled the northern conquerors in ancient India, even though through overwhelming military power they could subdue it for a time. Probably to avoid the plateau Samudra Gupta carried on his military campaign along the eastern coast.

The fairly fertile littorals and the deltas of the Mahanadi, the Godavari, the Krishna group, the Narmada and the Tapti had a considerable population and account for a reasonable part in the ancient history of India. The course of political history of the Cauvery Delta, the core of Dravidian life and civilization, is somewhat independent of the events in North India. It created more mariners in ancient times, perhaps due to the peninsular character of the region.

Let the author add here that the vastness of India divided by many rivers and mountains accounts for the development of various languages and kingdoms in India. The people speaking Dravidian language were sparsely populated in the whole of South India. But owing to the vastness of the area the southern wing of the population lost touch with the corresponding wing of the north resulting in the gradual development of what can be termed as proto-Tamil and proto-Telugu. The proto-Tamil speaking people again were separated themselves by the Western Ghats causing the development of

Malayalam and Tamil languages. Likewise, Telugu and Kannada were developed.

The writer likes the readers to bear in mind that the modern discoveries in communications have reduced considerably the role of the geographical feature as a factor in determining the course of human history. With the marvellous inventions such as the aeroplane and the radio which suppress time and eliminate distances people have learned to know their domain and familiarize themselves with their fellow men in other parts of the domain and have begun to forge a strong human link. Man is led to think "universally".

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